

# BREAKING DOWN BARRIERS TO BROADBAND INFRASTRUCTURE DEPLOYMENT

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## HEARING BEFORE THE SUBCOMMITTEE ON COMMUNICATIONS AND TECHNOLOGY OF THE COMMITTEE ON ENERGY AND COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

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## **BREAKING DOWN BARRIERS TO BROADBAND INFRASTRUCTURE DEPLOYMENT**

**WEDNESDAY, OCTOBER 28, 2015**

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON COMMUNICATIONS AND TECHNOLOGY,  
COMMITTEE ON ENERGY AND COMMERCE,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 10:07 a.m., in room 2123, Rayburn House Office Building, Hon. Greg Walden (chairman of the subcommittee) presiding.

Members present: Representatives Walden, Latta, Barton, Shimkus, Blackburn, Lance, Guthrie, Olson, Pompeo, Kinzinger, Bilirakis, Johnson, Long, Ellmers, Collins, Cramer, Upton (ex officio), Eshoo, Doyle, Welch, Clarke, Loeb sack, Rush, Matsui, Lujan, and Pallone (ex officio).

Staff present: Gary Andres, Staff Director; Ray Baum, Senior Policy Advisory for Communications and Technology; Rebecca Card, Assistant Press Secretary; Andy Duberstein, Deputy Press Secretary; Gene Fullano, Detailee to the Communications and Technology Subcommittee; Kelsey Guyselman, Counsel to the Communications and Technology Subcommittee; Grace Koh, Counsel to the Communications and Technology Subcommittee; Tim Pataki, Professional Staff Member; David Redl, Counsel to the Communications and Technology Subcommittee; Charlotte Savercool, Professional Staff Communications and Technology; Greg Watson, Legislative Clerk for Communications and Technology and Oversight and Investigations; Christine Brennan, Press Secretary; Jeff Carroll, Staff Director; David Goldman, Chief Counsel for Communications and Technology; Jerry Leverich, Counsel; Lori Maarbjerg, FCC Detailee; and Ryan Skukowski, Policy Analyst.

### **OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON**

Mr. WALDEN. We are going to call to order this subcommittee on Communications and Technology for our hearing on Breaking Down Barriers to Broadband Infrastructure Investment.

And welcome our witnesses here today and others.

Yesterday, this subcommittee met to discuss how the President's policy on applying monopoly-era Title II regulations on high-speed networks has affected private investment in broadband infrastructure. In light of what may happen in the marketplace, in light of how the marketplace works, I think it is important to look at the uncertainties and the barriers in the marketplace and the delays that hinder the deployment of communication networks and the

availability of broadband for all Americans. These are important goals, regardless of the outcome of the current court battle over Title II.

Today's hearing will focus on reviewing bipartisan legislation to accelerate the permitting processes, open up available infrastructure, and cut down on uncertainty and delay.

There is no question that networks are racing to keep up with consumer demand. We know that for fact. The Cisco Virtual Networking Index predicts that by 2019, the Internet of Things will increase the load on our networks exponentially, pushing us toward the 2 zettabyte-per-year mark, yes, indeed, zettabytes. That is 12 times more data than we used in 2009. Streaming video, wearables, and machine-to-machine communication are only a few of the developments vaulting network use skyward. And that's just based on what we now know. It is impossible, of course, to predict what innovations will cause us to increase our data consumption by another exponential factor.

We need to ensure that our federal policies allow networks to manage the growing tidal wave of data consumption, and this subcommittee has been approaching this issue from at least two perspectives. First, we have reviewed the availability of spectrum and continue to consider ways to make more spectrum available for commercial broadband use. Let me make clear, our work on spectrum is far from over, but we continue to make progress. And it is a big focus of our subcommittee.

Second, we must consider ways to lower the cost of deployment, to make investment in infrastructure more attractive to network operators. And yesterday, this subcommittee heard from economists on the different challenges associated with return on incremental investment: that is, whether companies will invest in upgrades and expansion. And today, we will consider the other side of the equation, the sunk costs.

We are focusing on lowering the costs of deployment by considering legislation that would help to streamline red tape in permitting and by providing access to existing infrastructure that would help to reduce costs by eliminating delay and uncertainty in deployment.

Specifically, we will consider a bill that would require the government to maintain a database of federal assets. Now, this is a step that many in the Administration have already called for. This database would allow infrastructure providers to quickly determine efficient routes for laying fiber or attaching antennas. It would provide points of contact to allow infrastructure providers to identify their negotiating partners. And we will also consider how to ensure that agencies make broadband infrastructure permitting a priority, by requiring the senior real property officer of each landholding agency accountable for the performance of the agency in this respect.

We are also considering a bill to ensure that poles owned by federal entities become available to broadband infrastructure providers at the statutorily regulated rate. Now, poles have been an essential input to the deployment of telephone and cable services. They continue to be essential inputs to broadband infrastructure. Stringing wire on poles can be much more economical than burying



fiber in city streets. This legislation allows us to explore the possibility of increasing access to federally owned poles, as well as discuss clarifying the rates and placement of poles across the country.

We will also review H.R. 3805. Now, that is a bill introduced by the ranking member Ms. Eshoo, myself, and many on this subcommittee are cosponsors. The Broadband Conduit Deployment Act is a sensible idea that many in the broadband industry have recommended. The bill will require States to evaluate the need for broadband conduit whenever they dig up the roads for a federal-funded project. Now, simply having that conduit installed in the roads already will reduce the costs of broadband deployment significantly.

This subcommittee will also take on the project of streamlining the permitting processes for federal agencies with a significant control over federal lands. One of the concerns most frequently expressed by those seeking to deploy broadband infrastructure is that the permitting processes are inconsistent from field office to field office or from army base to army base. We will consider a bill to address the inconsistencies by requiring the Department of Interior, the Forest Service, and the Department of Defense to streamline and standardize their permitting processes, making them as efficient as possible for those seeking to provide broadband service.

We also have a draft bill before us today that streamlines the agency-required reviews under the National Historic Preservation Act and under the National Environmental Protection Act. This draft bill would seek to eliminate duplicate Section 160 and NEPA reviews, striking a balance between protecting our cultural and environmental treasures and accelerating the pace of broadband infrastructure permitting.

Last but not least, we will consider the good work started in the 112th Congress in the Spectrum Act. We required GSA to develop master contracts, forms, and fee schedules for the attachment of antennas to federal properties. We have a draft bill before us that makes clear that we expect agencies to use those master contracts, forms, and fee schedules.

I would like to thank our witnesses today for taking the time to comment on the legislation and to help us understand how we can improve the legislation as we move on to the next steps. Our intent is to maintain an open and interactive process in drafting this legislation so that we can strike the right balances and arrive at the right policies for spurring broadband deployment.

With that, I would recognize the gentlelady from California, Ms. Eshoo, for opening comments.

[The prepared statement of Mr. Walden follows:]

#### PREPARED STATEMENT OF HON. GREG WALDEN

Yesterday, this subcommittee met to discuss how the President's policy on applying monopoly-era Title II regulations on high-speed networks has dampened private investment in broadband infrastructure. In light of this, I believe that it is more important than ever to do everything else we can to remove the uncertainties and delays that hinder the deployment of communications networks and the availability of broadband to all Americans. These are important goals regardless of the outcome of the current court battle over Title II. Today's hearing will focus on reviewing bipartisan legislation to accelerate permitting processes, open up available infrastructure, and cut down on uncertainty and delay.

There is no question that networks are racing to keep up with consumer demand. The Cisco Virtual Networking Index predicts that by 2019, the Internet of Things will increase the load on our networks exponentially, pushing us toward the two zettabyte per year mark—that's 12 times more data than we used in 2009. Streaming video, wearables, and machine-to-machine communication are only a few of the developments vaulting network use skyward. And that's just based on what we know now; it is impossible to predict what innovations will cause us to increase our data consumption by another exponential factor.

We need to ensure that our federal policies allow networks to manage the growing tidal wave of data consumption, and this subcommittee has been approaching this issue from at least two perspectives. First, we have reviewed the availability of spectrum and continue to consider ways to make more spectrum available for commercial broadband use. Let me be clear, our work on spectrum is far from over.

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drafting this legislation so that we can strike the right balances and arrive at the right policies for spurring broadband deployment.

**OPENING STATEMENT OF HON. ANNA G. ESHOO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA**

Ms. ESHOO. Thank you. And good morning, Mr. Chairman. And all of our thanks from this side for having this hearing. And welcome to the witnesses.

Competition, competition, competition. We have heard Chairman Wheeler, members of the committee repeat these words over and over and over again, and yet  $\frac{3}{4}$  of U.S. households have access to just one broadband provider capable of offering the speeds needed to unlock everything the internet has to offer.

This summer I heard from Vince, a constituent in Santa Cruz, who told me he pays about \$140 a month for two landlines with long distance and a DSL line that is supposed to be 6 megabits. He told me that if he were actually able to get those speeds, the service would be almost usable for running his home business and having a movie night using Apple TV and Netflix.

Unfortunately, Vince's story is all too common not just in my congressional district, which may surprise many of you given that it is Silicon Valley, but around the country. With competition comes lower prices, faster speeds, and better customer service.

Last week, Chairman Walden—and I am so grateful to him for joining and being the Republican lead along with 26 other cosponsors—joined me in reintroducing—my idea has been around since, what, 2009. But you know what? Some things take time to mature or be appreciated—the Broadband Conduit Deployment Act. It is commonly called “Dig Once.” And it is so commonsense that I have even wondered why we didn't come up with this a decade ago. But at any rate, we are at it now.

And it would mandate the inclusion of broadband conduit, plastic pipes which house fiber optic communications cable, during the construction of federally funded roads when there is a demonstrated need for broadband during the next 15 years. Well, we know that there is that demand. So it is commonsense, it is bipartisan, it would expand access to broadband for millions of Americans, and the cream on the top is that it would save taxpayers considerable sums.

So the subcommittee today is also considering five draft bills intended to improve and streamline government process that can hinder the deployment of broadband, and I think they are really terrific ideas. The best part is that if we can package all of these and move them forward, that collectively they will really put a dent in the processing that we have. So I welcome them, especially by expanding the FCC's nondiscriminatory access obligation to include telephone poles located on federal property, the Federal Government owns a lot of property in the country, so to inventory that and then be able to really up our game I think would really make a huge difference.

So if enacted into law, as I said, collectively these ideas and the “Dig Once” policy is going to bring broadband into unserved areas in our country and underserved areas, which is so important.

So I thank all of my colleagues for their ideas and what we are going to discuss today. Thank you to the witnesses. We look forward to hearing from you. And I will yield the remainder of my 54 seconds to Congresswoman Matsui.

Ms. MATSUI. Thank you very much, Ranking Member Eshoo. And I want to thank the witnesses for being here today.

Today, the subcommittee is discussing six proposals to facilitate broadband deployment across our nation. Many of my colleagues come from rural districts in which you really face unique hurdles in building infrastructure. But even in my urban district of Sacramento we have challenges to ensuring that all of our residents have the access they need to succeed in the 21st century.

I am pleased to join Ranking Member Eshoo and Chairman Walden as cosponsor of H.R. 3805, which encourages “Dig Once” so that when highway projects are under construction, we also install broadband conduit.

I also support the concepts we are discussing today about how to better leverage existing federal assets to support broadband deployment. In particular, I hope to hear from our witnesses about the proposal to create an inventory of federal infrastructure and property that can be used for broadband.

Broadband infrastructure is essential. Whether our constituents are urban or rural, middle income or lower income, I look forward to continuing our bipartisan work in this area.

And I yield back.

Mr. WALDEN. The gentlelady yields back the balance of her time.

I turn now to the Chairman of the full committee, the gentleman from Michigan, Mr. Upton.

**OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN**

Mr. UPTON. Well, thank you, Mr. Chairman.

We all know that robust infrastructure is the skeleton for a healthy economy. That is true for transportation, for energy, and unquestionably for communications, an industry where the pace of consumption is growing exponentially.

Folks in Michigan, like all Americans, have a near insatiable appetite for all the information, products, and services that the internet has to offer. To keep up with the ever-growing demand of a flourishing sector of the economy, broadband communications providers must build and innovate constantly, every day.

But we can't build efficiently if we get in our own way. The government permitting process has stymied transportation networks, energy networks, and communication networks. Both Presidents Bush and Obama have recognized the maze of red tape that infrastructure builders must navigate in order to build into the backbone of our national economy. Both Presidents have also attempted to cut back the endless reviews, requirements, and requests that hinder efficient, timely, and economic deployment of communications infrastructure. So it is time for this committee to put the pedal to the metal and improve government permitting for broadband networks.

This is a bipartisan effort. That has always been the hallmark of this subcommittee. Both Democrats and Republicans have been

at the drafting table together for a long time to think through good policy and put them into actionable laws. I would hope that we can continue this effort to help our nation's communication networks thrive and continue to contribute to our success in the global economy.

And I yield the balance of my time to Mrs. Blackburn.  
[The prepared statement of Mr. Upton follows:]

#### PREPARED STATEMENT OF HON. FRED UPTON

We all know that robust infrastructure is the skeleton for a healthy economy. This is true for transportation, for energy, and unquestionably for communications, an industry where the pace of consumption is growing exponentially. Folks in Michigan, like all Americans, have a near insatiable appetite for all the information, products and services the Internet has to offer. To keep up with the ever-growing demand of a flourishing sector of the economy, broadband communications providers must build and innovate constantly.

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Mrs. BLACKBURN. Thank you, Mr. Chairman. And thank you all for being here to talk with us.

I think, as you can see, there is a lot of agreement on the fact we have got a big job in front of us. And basically, you can sum it up and say how do we expedite building out the network and how do we allow the environment for increased speeds? This is what people want.

When you look at the demand, the demand is not sitting around waiting on some committee to do its job. The demand is continuing to increase. And as you are looking at 2019 and you are talking about 3.9 billion interconnected devices, it means we have to move forward with this.

The other issue is access to federal property. It does need to be addressed. And as we go through this process, I would encourage, Mr. Chairman, that we look closely at how we approach that.

And with that, I yield to any Member who is seeking time. Mr. Latta gets the balance of the time.

Mr. LATTI. Well, I appreciate the gentlelady for yielding. And I also thank our witnesses for being with us today.

Broadband has fundamentally changed the way we live our lives. From online banking to streaming videos, the demand for high-speed is relentless. There is a clear need for more investment in American broadband networks, and this is especially evident in the rural areas I represent where some households are not afforded access to high-speed services.

However, there are real challenges to investing in broadband infrastructure. The costs associated with building, maintaining, and

upgrading networks is often overlooked and taken for granted. That is why our law should not further impede build-out.

The Federal Government should find ways to eliminate barriers and encourage a continued model of private network investment that has been successful in our country. I hope that the discussion that we have today will start a healthy debate on how to best assist deployment of this critical infrastructure to support wireline and wireless broadband services.

And with that, I yield back the balance of my time to the gentlelady.

Mr. WALDEN. Are there any Republicans who want to use up the remaining minute? If not, I will turn to the gentleman from New Jersey, the ranking Democrat on the full committee, Mr. Pallone, for opening comments.

**OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY**

Mr. PALLONE. Thank you, Chairman Walden. I will keep my remarks short because I think there are some other Members who would like to use my time.

Consumer demand for high-speed broadband continues to surge. To meet this consumer demand, we must continue to invest in the networks that carry our data. As we can see here today, discussions about whether to invest in infrastructure do need to have two sides. Our priorities should never be whether to invest in infrastructure; it should be only how we invest. And the best way to build a sound infrastructure is to ensure that both industry and the government are working together.

The bills we are considering today demonstrate how this is done. And I want to thank the authors of all of today's bills for their efforts and dedication to meeting consumer demand and doing it in the right way.

But our work is not done because more and more of our communications needs are going wireless, and when it comes to wireless networks, infrastructure is only half the story. But for wireless networks to handle consumer traffic, we also need spectrum.

The budget agreement that we are considering today would direct the auction of 30 megahertz of spectrum for commercial use, and that is a good start. But we can't stop there. We should continue our bipartisan work in this committee to authorize more spectrum auctions going forward. By continuing these twin efforts to improve network infrastructure and to freeing more spectrum, I believe we can meet consumers' communication needs for years to come. And by working in a bipartisan fashion, we can show the country that our government can still work for them.

I was going to yield whatever time he needs to Representative Loeb sack.

[The prepared statement of Mr. Pallone follows:]

**PREPARED STATEMENT OF HON. FRANK PALLONE, JR.**

Thank you Chairman Walden for calling this hearing. I will keep my remarks short so we can hear from some other members who also care deeply about these issues.

Consumer demand for high-speed broadband continues to surge. To meet this consumer demand, we must continue to invest in the networks that carry our data.

As we can see here today, discussions about whether to invest in infrastructure do need to have two sides. Our priority should never be whether to invest in infrastructure; it should be only how we invest.

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By continuing these twin efforts to improve network infrastructure and to free more spectrum, I believe we can meet consumers' communications needs for years to come. And by working in a bipartisan fashion, we can show the country that their government can still work for them.

I yield the rest of my time to Representative Loeb sack.

Mr. LOEB SACK. Thank you, Ranking Member Pallone, for yielding me the time. And I would like to thank the subcommittee for holding this important hearing today.

As I have said many times before this subcommittee, including yesterday, just yesterday, improving broadband access is essential, particularly in districts like mine that are rural and have significant barriers to infrastructure development.

Every time I go home to my district, which is just about every weekend, I hear from my constituents about how important it is for Iowa families, businesses, hospitals, and schools to be connected in today's economy. I am very pleased that the subcommittee has worked to put together the draft bills that we are looking at today. I look forward to discussing these bills and exploring ways that we can help smooth the way for further infrastructure development.

At some point soon, I hope we also, however, turn our attention to the challenges of building and operating networks, especially wireless coverage, in areas of the country where people work and live and visit but where companies do not find it in their economic interest necessarily to build out. I believe that that challenge will require us to consider how networks are funded and will become an important component to the issue we are discussing here today.

And I thank the witnesses who are here today, and I yield back my time. Thank you, Mr. Pallone.

Mr. PALLONE. Mr. Chairman, I yield to Representative Lujan what time he might use.

Mr. LUJAN. Mr. Chairman, thank you so very much and to our chairman and ranking member for scheduling this incredibly important hearing to continue the conversation on how we expand access to broadband.

This issue is vital both to our economic future and our constituents' quality of life. By supporting broadband deployment, we support the entrepreneurs and innovators who want to build brighter futures for their people. By connecting schools, we help tackle the homework gap and prepare children to succeed in today's competitive economy.

But as we all know, when it comes to broadband, too many Americans have been left behind. This is especially true for rural parts of America. Currently, more than half of rural Americans and  $\frac{2}{3}$  of Americans living on tribal lands lack access to advanced broadband. In New Mexico, those numbers are 77 percent and 89 percent respectively.

Clearly, we have more to do to scale this digital divide, and the discussion drafts we are reviewing today are a good first step. And I am happy to see a bipartisan commitment to support the deployment of broadband infrastructure.

And with that, I yield back the balance of my time.

Mr. PALLONE. I am not sure if anyone else on my side would want to say anything.

All right. I yield back, Mr. Chairman.

Mr. WALDEN. The gentleman yields back the balance of his time. All time is expired. We will now go to our witnesses.

Thank you very much for being here to each of you and your testimony that you have submitted for us. We will start with Heather Burnett Gold, who is the president and CEO, FTTH Council Americas. Thank you for being here.

All of you, when you use the mics, just pull them uncomfortably close and make sure that little light is lit and you will be good to go.

So thanks for being here, and please go ahead, Ms. Gold.

**STATEMENTS OF HEATHER BURNETT GOLD, PRESIDENT AND CEO, FTTH COUNCIL AMERICAS; SCOTT BERGMANN, VICE PRESIDENT, REGULATORY AFFAIRS, CTIA; JEB BENEDICT, VICE PRESIDENT, FEDERAL REGULATORY AFFAIRS AND REGULATORY COUNSEL, CENTURYLINK; AND DEB SOCIA, EXECUTIVE DIRECTOR, NEXT CENTURY CITIES**

**STATEMENT OF HEATHER BURNETT GOLD**

Ms. GOLD. Good morning, Chairman Walden, Ranking Member Eshoo, and members of the subcommittee. Thank you for inviting the Fiber to the Home Council Americas to testify on breaking down barriers to broadband infrastructure deployment.

The council is dedicated to accelerating deployment of all-fiber networks by incumbent telephone companies, cable providers, competitive private builders, municipalities, and others.

Fiber optic cable is by any measure the most future-proof wireline infrastructure. Recent studies show that all-fiber networks promote economic growth and actually increase property values. Much progress has been made. Today, fiber-to-the-home networks pass approximately 30 percent of our households and many more of our businesses. Many agencies from the FCC to state and local governments have already lowered barriers and provided incentives for all fiber deployments.

But as the experience of my members has told me, there is much that needs to be done. I will focus on two such areas today: access to federal property and access to poles.

Earlier this year, the President created the Broadband Opportunity Council, which focuses on federal-agency efforts to facilitate broadband deployment. The BOC appropriately identified many ac-



tions to incense such deployment, but it is clear that legislative authority would further their implementation and make the Federal Government more efficient when administrating those assets.

First, Congress should mandate creation of a complete and interactive database of federal assets maintained by agencies on which broadband infrastructure can be attached or installed.

Second, legislation is needed to ensure that “Dig Once” is implemented by the relevant federal agencies where conduit is installed simultaneously with government highway construction projects.

Third, legislation should require common permitting application processes and fee schedules for access to federal assets regardless of the technology being deployed and obligate federal agencies to maintain records tracking applications and their resolution.

Fourth, where historic, cultural, and scientific reviews have already been undertaken regarding a federal asset, subsequent providers seeking access ordinarily should not have to complete such a review.

And finally, to reduce open-ended delays in the approval process, Congress should adopt a shot clock providing for automatic permitting approval after a specific time period.

I would like to now turn to the significant problem providers face when seeking access to poles of utilities and local exchange carriers.

In 2011, the FCC addressed some of the key problems service providers were facing with pole owners and attachments. Yet even after the FCC’s action, the council members still encounter substantial problems when seeking access to poles, which compels me to ask for Congress’s help on their behalf.

First, because attachers have found the FCC’s timelines are regularly flouted by many pole providers, Congress should codify the timelines, direct the Commission to develop streamlined procedures for expeditious resolution of any complaints concerning timeline violations, and give the Commission clear authority to impose fines at levels that would motivate adherence to those timelines.

Second, new legislation should make clear and provide for prompt enforcement of the obligations of pole owners to identify properly certified contractors that attachers can use to perform pole survey and make-ready work in a timely fashion.

Third, Congress should preclude utilities from requiring new attachers to pay for make-ready to fix existing violations of others before obtaining access to poles and allow only cost-based make-ready charges for the work still needed after the violations are corrected.

Fourth, Congress should simplify the Pole Act and eliminate the cause for continuing disputes by making clear that so-called cable rate, which the federal courts have found fully compensatory, applies to all attachers.

Finally, all pole owners should be brought within the scope of the Pole Act and the FCC’s implementing regulations.

[Audio malfunction in hearing room.]

Ms. GOLD. Pole attachments can be found in my written testimony.

In closing, the council commends the subcommittee for hearing concerns about barriers that stand in the way of fiber network deployment. We stand ready to work with you as you move forward.

Thank you again for this opportunity.

[The prepared statement of Ms. Gold follows:]

**TESTIMONY OF HEATHER BURNETT GOLD  
PRESIDENT & CEO, FIBER TO THE HOME COUNCIL AMERICAS**

**BEFORE THE  
HOUSE SUBCOMMITTEE ON COMMUNICATIONS AND TECHNOLOGY  
ON BREAKING DOWN BARRIERS  
TO BROADBAND INFRASTRUCTURE DEPLOYMENT**

**OCTOBER 28, 2015**

Chairman Walden, Ranking Member Eshoo and Members of the Subcommittee, thank you for inviting the Fiber to the Home Council Americas to testify on breaking down barriers to broadband infrastructure deployment. The Council is a trade association dedicated to one objective: accelerating the deployment of all-fiber networks by any provider – including incumbent telephone and cable providers, private competitive entities, and municipalities – throughout the US, Canada, and Latin America. We also support mobile providers bringing fiber to their towers and businesses and community anchor institutions bringing fiber to their buildings. Over the past 15 years, we have come far in bringing all-fiber networks to homes, businesses, and institutions through the US. For instance, all-fiber networks now pass approximately 30% of the nation's homes and an even greater percentage of businesses.

In essence, we are in the midst of wiring America with fiber optic cable, which by any objective measure is the most future-proof wireline infrastructure. As just one way to measure fiber's value, recent studies have shown that having all-fiber networks in a community propels economic growth and increases the value of individual housing units. Real estate agents have told me families now want to know not only about the local schools but about whether the house is connected to fiber.

Yet, we need to recognize that building all-fiber networks is an expensive undertaking, where the capital is invested upfront and the returns come over the long run. In effect, they are

massive construction projects. Construction costs are approximately about 60-80% of total project cost. Therefore, providers, construction companies, and equipment vendors are constantly searching for ways to reduce their costs. For instance, equipment vendors have developed simple plug-in devices to reduce the need to splice fiber cable. Construction companies have developed micro-trenching to speed in-ground installation. The industry can do more, and I am confident that we will continue to innovate.

Local, state, and Federal governments also have a major role to play in helping accelerate all-fiber deployments. They control access to rights of way and other infrastructure that are essential for companies deploying all-fiber networks. They ensure providers can get access to critical private assets on just, reasonable, and non-discriminatory rates, terms and conditions. Many government agencies from the FCC to state regulators to local governments have already stepped up to lower barriers to or provide incentives for deployment. But, so much more needs to be done. Virtually every day I hear from one of my service provider members about such issues as delays in government permitting or government's failure to enact regulations that ensure access to key private facilities. That is why I applaud you for this hearing and urge you to follow through to draft and then enact legislation to address these deployment issues.

While there are many areas where government action is required, in my testimony today, I will focus on just two: access to Federal rights of way and access to poles, ducts, and conduit.

For over a decade the Federal agencies have sought to improve access by telecommunications and broadband providers to right of way and other infrastructure they control. A working group of the agencies was formed in 2002 by the National Telecommunications and Information Administration, and two years later President Bush directed the agencies to implement their recommendations. In 2012, President Obama signed an

Executive Order creating a working group to accelerate broadband deployment, and they issued a report a year later that included “detailing improvements” to Federal permitting processes. And then, just earlier this year, the President created the Broadband Opportunities Council, which focused more expansively on Federal agency efforts to facilitate broadband deployments. These efforts have been fruitful. The Fiber to the Home Council was particularly heartened by the recommendations of the Broadband Opportunity Council to create an accessible inventory of Federal assets that can support broadband deployments and provide a one-stop portal to access information about Federal broadband programs. Yet, substantial problems persist, and in the words of the Broadband Opportunity Council, “more action is needed.”

In preparing for this hearing, I canvassed just a few of my service provider members about their recent experiences getting permits from Federal agencies. Here’s what I heard:

- A service provider in the southeast filed applications for permits in early 2014 to cross Federal property with fiber. None have been approved. All the provider keeps hearing is that the applications are under review.
- A service provider was building a 250 mile fiber route along a Federal highway, and 8 miles of this route ran through land controlled by the US Forest Service. The provider built all of the route, except for the portion controlled by the Forest Service. But, it then had to wait an additional 6 months for the Forest Service to approve its application. Thus, what should have been a 6 month project took over 12 months instead.
- A service provider’s application seeking access to tribal lands was hung up for years as six agencies within the Department of Interior reviewed the application.

It is not just flaws with the permitting process per se that inhibits the process, but also the knowledge about what assets are under Federal control, which agency should be tasked with the initial review, the laborious additional layers of scrutiny should cultural, historic or scientific review be required, and the multiplicity of forms, contracts and fees attached to all of the above. The Broadband Opportunity Council appropriately identified many actions that would assist in overcoming some of these hurdles, but it is clear that legislative authority would further their implementation and provide the Federal government with the ability to become even more efficient in its administration of such assets.

***Leverage Federal assets.*** Federal lands, buildings and assets are important conduits for broadband deployment and should be accessible for the promotion of broadband competition and deployment. There should be a complete and interactive database of Federal assets on which broadband infrastructure can be attached or installed. All landholding agencies should be required to provide such data, including if additional cultural, historic or scientific review will be required, and a contact for such applications for access. Policies such as “Dig Once” articulated in HR 3805 (the draft bill), where conduit is installed at the same time as certain highway construction projects would ensure the availability of an essential asset to fiber deployment, considerably reducing time and cost.

***Common Permitting and Streamlined Processes.*** The Federal government should strive for common permitting, application processes and fee schedules for access to Federal assets to reduce the burden on all applicants, governmental, non-profit, and/or private applicants regardless of the technology being deployed. Further agencies should need to maintain records that track the applications received and approval or denial decisions and reasons. And if any broadband provider has already received permission for access to a particular Federal asset,

subsequent providers should not be forced to duplicate extensive historic, cultural or scientific reviews.

It is not that all of the Federal working groups have failed to make progress. As a result of their recommendations, agencies promptly inform a service provider that an application has been received. The problem is that there often is no end to the process. An agency can just say, “It’s under review.” And often, multiple agencies need to review the application, often on a sequential basis, which increases the chances that the process is dragged out even longer.

In addition to the processes outlined above, what would be most beneficial is a deadline – a shot clock – where approval is automatically granted after certain period unless denied or granted beforehand. Second, we need greater transparency into the review process – not just feedback that the application is “under review”, but information as to any deficiencies so that applications can be improved within the deadline time period. Third, permits should be granted for longer durations with an automatic renewal unless authorization is revoked for good cause.

Let me now turn to the significant problems fiber service providers face in seeking to access to poles, ducts, and conduits of utilities and local exchange carriers.

Almost 40 years ago, Congress passed the Pole Attachments statute (Section 224 of the Communications Act) to ensure that cable operators could attach to poles (and ducts and conduit) owned by public utilities and incumbent local telephone companies – but not to poles owned by railroads, cooperatives, or entities owned by the Federal government or state governments. The statute also permitted states to take over responsibilities to administer and enforce the statute, and numerous states have availed themselves of this opportunity. Some states have even enacted legislation expanding beyond the reach and requirements of the Federal law. Congress in 1996 expanded the statute to cover access by providers of telecommunications service, although it

adopted a slightly different formula for setting rates for those entities than applied to cable operators.

There is little doubt that access to poles, ducts, and conduit is a key driver of fiber deployments. As the FCC explained in the *National Broadband Plan*, “[i]nfrastructure such as poles, conduits, rooftops and rights of-way play an important role in the economics of broadband networks. Ensuring service providers can access these resources efficiently and at fair prices can drive upgrades and facilitate competitive entry.” This is just as true today as it was five years ago.

Yet, despite the statute’s lengthy history and despite the importance of access to poles, services problems have continued to experience problems with pole owners and attachments. In 2011, the FCC again sought to address some of these problems. After undertaking a review of its rules and policies concerning access to and rates for pole attachments, the Commission revised its pole attachment fee formulas to bring the rates for telecommunications carriers – which had typically been markedly higher than the cable rates under the Commission’s implementation of the 1996 amendments – more in line with the rates charged cable companies. At the same time, the FCC also made clear that wireless carriers have the right to access to pole tops, gave incumbent local exchange carriers certain rights concerning access to poles, imposed timelines to govern the pole attachment application and make ready processes, and required pole owners to allow applicants for access to use approved contractors, in certain circumstances, to conduct survey work and to perform make ready work in the communications space on poles. The Commission said that the modifications to its rules would help address the fact that “lack of reliable, timely, and affordable access to physical infrastructure—particularly utility poles—is often a significant barrier to deploying wireline and wireless services.”



Yet, even after these actions, the Council's service provider members still find that substantial problems arise in seeking access to poles. Let me discuss more fully both the problems service providers face and remedies Congress should adopt.

First, the FCC's adoption of rules imposing timelines on the pole attachment application process have helped fiber builders from getting bogged down in their deployments as survey work is performed, make ready estimates are developed, and make ready work is performed. Unfortunately, however, the FCC's timelines have not cured all ills. In too many instances, pole owners simply ignore the timelines. In effect, the pole owner "dares" the entity seeking to attach to bring an enforcement action, knowing that it is costly to pursue a complaint and virtually impossible to have it resolved in a timely fashion. The Council proposes that Congress address this problem by not only codifying the regulatory timelines established by the FCC but also by requiring the Commission to develop streamlined procedures for expeditious resolution of any complaints concerning timeline violations. Congress also should also give the Commission clear authority to impose fines at levels that will provide proper motivation for pole owners to adhere to the timelines.

Second, while the FCC already requires make ready charges, which can constitute a significant portion of a new build, to be cost based, there are concerns raised by some carriers that make ready charges are wildly variable and do not reflect costs in any meaningful way. Service providers seeking to deploy fiber using existing poles would be well served by amendments to the statute making clear that fair and reasonable cost-based charges apply to make ready work and that the charges and make ready work requirements must be applied on a nondiscriminatory basis. Many times new attachers seeking to deploy new fiber help pole owners uncover, by the pole inspections associated with the applications, violations by previous

attachers. Further, both a service provider member and a construction company member have told the Council that utilities often require them to fix all violations before they can obtain access – regardless of which attacher caused the violation. It is important that new attachers not share the burden of correcting violations of existing attachers and only pay cost-based charges for make ready work, once all violations have been corrected, for any additional work still needed to make room for their attachments.

Third, in addition to adopting timelines in 2011 framing the application and make ready process, the Commission required pole owners to make available lists of contractors to perform survey work and make ready work when the pole owners fail or refuse to do so within the timelines. The objectives motivating these requirements were correct, but the effectiveness of these requirements is far from satisfactory. Even when such lists are provided – and in practice they often are not – attachers are stymied because pole owners will not accept the survey results or will preclude any make ready to be performed on the poles except under their direct control. Often times, the reasons given by electric utilities, for example, is that the contractor survey or make ready work will impinge upon the electric space. In many cases, contractors are hesitant to cross swords with the utilities because of the potential adverse impact to their business. The use of certified contractors must be effectively supported through legislation that enables would-be attachers to have their right to use such contractors rapidly enforced when the pole owner fails to act according to the timelines. Such a mechanism, backed by the ability to obtain a rapid resolution of a complaint before the Commission and appropriate forfeiture authority, would create the proper incentives for pole owners, where they wish to control the process, to undertake the work themselves, but in an expeditious fashion. The pole owners have every right to expect the work to be done properly, naturally, so the statute should make clear that any contractor may

do the work, provided it uses workers that are properly certified to undertake it. Finally, Congress should direct the Commission to review current attachment requirements, e.g. spacing and use of various parts of poles, and have the authority to limit unreasonable requirements, including by accounting for the fact that fiber attachments do not carry electric current. The Council also suggests that Congress consider the implementation of “one touch” rules, where a single contractor can perform the make ready work for more than one attacher at a time. In an era where the objective is to encourage ever more broadband deployment, the presence of multiple providers should not mean that there is a race to see who gets permission to access the pole first, while others wait.

Fourth, all providers of poles, conduit, ducts, and rights-of-way -- including the Federal government, cooperatives, and municipal entities (e.g. municipal-owned electric provider) -- should be brought under the Federal statute to facilitate deployment and have a legal backstop where negotiations to obtain reasonable access rights fail. Whatever the reasons for excluding these entities may have been, it is undisputed that their actions can act as a drag on fiber deployment. Therefore, Congress should amend the statute to eliminate the exemption. Ensuring access to poles owned by the Federal government, cooperatives, and municipal entities will help ensure that consumers in areas these entities serve have the same competitive and reasonably priced broadband services that reach end users in areas served by investor owned utilities. Municipal utilities serve many cities of varying sizes, both large and small. Electric co-ops serve over forty million Americans, according to the National Rural Electric Cooperative Association, mostly in rural and semi-rural areas where fiber deployment has been lacking. Bringing the poles of these entities within the scope of the statute is important for making cost-effective fiber deployment ubiquitous.

Fifth, despite efforts by the FCC to bring telecommunication rates closer to parity with cable rates, the reality is that attachers that offer telecommunications services may still be charged 70% or more than the cable rates. Although the FCC is examining a petition for reconsideration filed by the National Cable and Telecommunications Association and others to eliminate that persistent disparity, one of the potential hurdles to Commission action in this area is the statute itself. The statute expressly contemplates two different formulas, one for cable providers and the other for telecommunications carriers. While the FCC possesses the legal authority to interpret those statutory provisions to eliminate much of the disparity, as the United States Court of Appeals found in reviewing the FCC's 2011 decision, the Congress should remove all doubt by amending the statute to provide a single formula patterned off the cable formula. The Federal courts have recognized that the existing cable formula produces rates that are fully compensatory to pole owners. Use of a single formula will eliminate many disputes over what charges apply to which attachers and any uncertainty over the proper interpretation of the two rate methodologies in the statute today, methodologies which were adopted long before the convergence of cable and telecommunications that we see happening today was anticipated.

Finally, there is such a variety of service providers who are deploying fiber and have need to attach to poles that the traditional categories of "cable company" and "telecommunications carrier" are not sufficiently inclusive to ensure all enterprises laying fiber and competing in today's communications marketplace have similar pole attachment rights. Therefore, the Council encourages Congress to develop legislation that eliminates the artificial categories based on traditional and increasingly archaic definitions that may act as a deterrent to the build out of fiber plant.

In closing, the Council commends the Subcommittee for hearing concerns about barriers that stand in the way of fiber network deployment. We urge you to move forward to address these problems, and we stand ready to work with you as you move forward.

Mr. WALDEN. Ms. Gold, thank you for your testimony. We appreciate your comments.

We will now go to Mr. Scott Bergmann, who is the vice president for regulatory affairs, CTIA. Mr. Bergmann, thank you for being here. Please go ahead.

#### **STATEMENT OF SCOTT BERGMANN**

Mr. BERGMANN. Chairman Walden, Ranking Member Eshoo, and members of the subcommittee, thank you for the opportunity to share the wireless industry's perspective on promoting broadband infrastructure deployment.

Sound infrastructure policy is a necessary complement to good spectrum policy. CTIA commends the subcommittee for its leadership on a long-term spectrum plan to ensure that America's wireless industry can remain the world's leader and an engine for investment and innovation.

We also applaud your focus today on promoting reasonable and predictable policies that enable timely deployment of wireless infrastructure. To that end, CTIA commends the bipartisan staff discussion drafts and the Eshoo-Walden "Dig Once" bill. These proposals can help CTIA's members effectively deploy the world's most advanced wireless networks.

To build out wireless infrastructure that reaches all Americans, our members need access to locations controlled by the Federal Government and by non-Federal Government entities. In the roughly  $\frac{3}{4}$  of the country governed by the local zoning process, the FCC's 2009 shot-clock order produced a framework that has provided clarity and accelerated wireless broadband deployment. That order established much-needed deadlines for local governments and recognized that co-locations, which take place on existing sites, should move faster.

CTIA supported the FCC's order and helped defend it in court, where it was upheld in a 2013 Supreme Court decision. The shot-clock order has already begun to produce positive results. Siting applications that were backlogged began to move speeding facilities' deployment and improving network coverage. And a number of states have embraced the successful shot-clock approach, most recently, California just 3 weeks ago.

Congress took an equally important step when it adopted the 2012 Spectrum Act. In Section 6409 Congress provided that zoning authorities may not deny and shall approve eligible requests to modify existing wireless facilities. As implemented by the FCC in 2014, this ability to co-locate by right is enormously helpful to carriers as we migrate to new generations of technology and look forward to 5G.

But more needs to be done. The FCC has helpfully started a proceeding to speed deployment of small cells and is working to permit greater access to so-called twilight towers. We urge the Commission to complete these proceedings expeditiously.

Unfortunately, Section 6409's provisions for federal property have not been implemented as successfully or as rapidly. The act directed GSA to establish common processes and contracts for wireless antenna deployments on federal property. And GSA was required to develop a common application form for federal easements

and rights-of-way. Despite a 60-day deadline, GSA only recently acted on Section 6409.

While we commend GSA's efforts, federal agencies must consistently adopt the standardized forms and contracts in order to fulfill Congress's intent. Congressional oversight is particularly important because the Federal Government controls several thousand buildings and roughly 28 percent of the U.S. landmass. Siting on these properties today is often complicated and time-consuming. Even lease renewals are often lengthy and bureaucratic. These delays deter investment and harm consumers.

So we encourage the subcommittee to make federal citing process look more like the municipal process. This will produce revenue for the Federal Government; will help improve and extend service; it will spur investment and jobs; and it will enable government users, the private sector, and the public at large to benefit from America's world-leading wireless networks.

So in addition to moving forward with the "Dig Once" legislation and the staff discussion drafts, CTIA offers several recommendations.

First, federal agencies should have deadlines for acting on requests to site on federal properties. Those deadlines should reflect the lesser impact associated with co-locations.

Second, all agencies should be encouraged to consistently use the common processes and contracts recently established by GSA.

Third, Congress should direct the Commission to conclude its work on the small cell deployment proceeding by a firm deadline.

And finally, Congress should direct the FCC to affirmatively state that twilight towers that have not been subject to prior objections need not be processed under the National Historic Preservation Act. This would allow those longstanding facilities to be upgraded on a timely basis.

Collectively, these actions will improve the wireless industry's ability to deploy infrastructure and to enhance America's economic well-being.

Thank you for the opportunity to testify, and I look forward to your questions.

[The prepared statement of Mr. Bergmann follows:]

Testimony of

Scott Bergmann

Vice President, Regulatory Affairs

CTIA – The Wireless Association®

on

“Breaking Down Barriers to Broadband Infrastructure Deployment”

before the

House Energy & Commerce

Subcommittee on Communications & Technology

October 28, 2015





Testimony of Scott Bergmann  
 Vice President, Regulatory Affairs, CTIA – The Wireless Association®  
 Before the House Subcommittee on Communications & Technology  
 October 28, 2015

Chairman Walden, Ranking Member Eshoo, and members of the Subcommittee, thank you for the opportunity to participate in today's panel on "Breaking Down Barriers to Broadband Infrastructure Deployment."

Sound infrastructure policy is a necessary complement to good spectrum policy. CTIA commends the Subcommittee for its continued leadership in working toward a long-term spectrum plan to ensure that America's wireless industry can continue to be the world's leader and an engine for investment and innovation. However, it is also essential for the Subcommittee to take steps to promote reasonable, predictable processes to enable the deployment of the infrastructure necessary to put that spectrum to work. Toward that end, CTIA commends the Eshoo-Walden "Dig Once" bill introduced last week and the staff discussion drafts that are the subject of this hearing. Taken comprehensively, these proposals can help CTIA's members effectively deploy the world's most advanced wireless networks.

**Non-Federal Sites**

Building out wireless infrastructure to ensure that all Americans have broadband capabilities will require access to locations controlled by the Federal government and others. On the non-federal side, the Federal Communications Commission ("FCC" or "Commission")'s November 2009 "shot-clock" Order (*In re Petition for Declaratory Ruling*, 24 FCC Rcd. 13994, 14001) produced a framework that helps in the roughly three-quarters of the country governed by the municipal zoning process. That framework, which resulted from a petition filed by CTIA, led to the establishment of a 90-day deadline for action by municipal authorities to act on collocation requests (that is, an application to place a new antenna on an existing structure) and 150 days to process all other applications. CTIA supported the Commission's Order and intervened in support of the FCC in its defense of the Order throughout the appellate process (culminating in a 2013 U.S. Supreme Court decision, *City of Arlington, Texas, et al. v. Federal Communications Commission, et al.*, upholding the Order).

That decision has already begun to produce positive results. In the period following the imposition of the "shot-clock," siting applications that had been backlogged began moving through the approval process, accelerating the rate of facilities deployment and improving

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network coverage. This successful “shot-clock” concept has now become a statutory obligation in a number of states, most recently in California with enactment of AB 57 just three weeks ago. CTIA is hopeful that other states will follow suit.

Congress took an additional and equally important step supporting access to non-federal sites by adopting Section 6409 of the 2012 Middle Class Tax Relief and Job Creation Act. In particular, Section 6409(a) provides that “a State or local government may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station.” This ability to collocate by right has been enormously helpful as carriers have migrated from 3G to 4G and upgraded antenna deployments to do so. This will be even more critical as we transition from 4G to 5G and greater network densification helps enable the Internet of Things.

But more needs to be done. The Commission has helpfully initiated work to reduce the burdens on implementing small cells and permit greater access to so-called Twilight Towers (*i.e.*, towers that may lack paperwork associated with historic preservation review and which therefore may be ineligible for collocating wireless facilities). That work should be completed expeditiously.

**Federal Sites**

Unfortunately, the provisions of Section 6409 affecting use of federal property have not been as successfully, or as rapidly, implemented, as the provisions authorizing collocation by right on non-federal land. Section 6409(c)(1) states that within 60 days of the law’s February 2012 enactment the Administrator of General Services was to establish common processes and contracts for the deployment of wireless antenna structures on federal buildings or property, while Section 6409(b) requires development of a common form for applications for federal easements and rights-of-way. Congress’ directive is consistent with Executive Order 13616 (issued in June 2012), which required the General Services Administration (“GSA”) to consult with the Federal Property Working Group to develop application forms, master contracts, and fees consistent with Section 6409. Subsections (b) and (c) of Section 6409 have only recently been acted upon by the GSA. While we commend GSA for its efforts, the relief envisioned by 6409(b) and (c) and the Executive Order will come only if those provisions are fully

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implemented and ultimately utilized in a consistent manner by agencies across the federal government. Congressional help in this effort, through effective oversight and, if necessary, additional legislation, is key to improving the siting experience in the federal space.

That is important because the federal government controls approximately 28 percent of the land mass of the United States, as well as thousands of buildings across the country. Siting on these properties or buildings is often complicated and time-consuming. Delays result in investment deferred or denied, with negative consequences for industry and consumers alike. Similarly, even where antennas have been deployed, the process for lease renewal is often unnecessarily lengthy and bureaucratic. Thus, it is CTIA's view that it would be beneficial to take actions that make the federal siting process look more like the municipal siting process. More complete implementation of Section 6409 of the 2012 Spectrum Act and the 2012 Executive Order will help produce that result. Further, the wireless industry appreciates the efforts of the Broadband Opportunity Council, which recently announced several recommendations and timelines to help expedite infrastructure siting. This is a good start and CTIA is hopeful that, with appropriate monitoring by Congress, agencies will achieve the Broadband Opportunity Council's goals.

Action on these fronts will produce several benefits. First, because industry isn't looking for free access to these sites, facilitating siting on federal properties will produce revenue for the government. Second, it will assist industry in its efforts to enhance service in areas where service is already available and to extend service in areas where it may be lacking. That drives investment and jobs. And finally, by further deploying wireless networks, we can enable users in government, the private sector, and the public at large to leverage America's world-leading wireless networks to improve their lives.

**How Congress Can Help**

In addition to moving forward with the "Dig Once" bill and the staff discussion drafts, CTIA offers several recommendations for action by Congress. *First*, just as the FCC "shot-clock" imposed a deadline for municipal authorities to act on siting applications, agencies should have a deadline for acting on requests to site on federal land, buildings, or other properties, including access to federal rights-of-way. Like the "shot-clock" framework, those deadlines should account

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for requests to collocate on existing structures. *Second*, to the maximum extent practicable, all agencies should be encouraged to consistently use a common process and contracts established by GSA pursuant to Section 6409(c) of the Spectrum Act. *Third*, while the FCC has been working diligently, Congress should direct the Commission to conclude work on its Distributed Antenna System (“DAS”) and Small Cell Deployment proceeding (WT Docket 15-180) by a firm deadline, ideally within a year, consistent with the agency’s own timeframe for finalizing streamlined rules. *Finally*, Congress should direct the FCC to affirmatively state that Twilight Towers that have not been subject to prior historic preservation objections need not be processed under Section 106 of the National Historic Preservation Act (“NHPA”). Such a determination will facilitate collocations on Twilight Towers, thereby contributing to the more rapid deployment of wireless broadband services. Collectively, these actions will improve carriers’ ability to deploy wireless infrastructure and enhance America’s economic well-being.

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Thank you again for the opportunity to testify.

Mr. WALDEN. Thank you, Mr. Bergmann. We appreciate your testimony.

We go now to Jeb Benedict, Vice President, Federal Regulatory Affairs and Regulatory Counsel for CenturyLink. Good morning. Thanks for being here.

#### **STATEMENT OF JEB BENEDICT**

Mr. BENEDICT. Good morning, Chairman Walden, Ranking Member Eshoo, and other distinguished members of the committee. Thank you for having me, and thank you for introducing the Broadband Conduit Deployment Act. Measures like this can make it easier, faster, and more cost-effective to connect more Americans.

CenturyLink operates a nationwide broadband network. We have a local network that covers nearly 600,000 square miles. We have a quarter-million miles of domestic fiber and more than a million miles of copper cable. We have millions of customers we serve directly, we provide wholesale capacity to many other providers, and we deliver connectively to tens of thousands of wireless towers nationwide.

With such a large network, we necessarily work closely with federal land use employees, and I can say we know that they are dedicated public servants. They are professionals who take their responsibility seriously. And we have and value constructive relationships with them. But even so, the cost and delays associated with access to federal lands pose a real and frustrating problem, and it is one that this committee could help with.

Congress should consider steps to reduce permitting delays, as discussed here. Broadband deployment, needed upgrades to rural communities, and urgently needed connections to wireless towers all are routinely delayed because of the slow review process. Agency permits commonly take 12 to 15 months, whereas on state and private lands, similar arrangements can be completed in just weeks.

We realize that agencies have limited resources, but within agency budgets we think headquarters really aren't treating the permitting function as a priority. We like to think that Congress can at least ensure broadband applications receive priority over other applications, just as electric utilities commonly and appropriately receive priority today.

Congress could consider legislation to expand categorical exclusions for previously disturbed areas. We support good stewardship of public lands and we strive to follow responsible environmental and historic practices, but in most of our installations, we are simply adding fiber to existing poles and conduit or we are trenching new fiber in road shoulders.

Federal land use agencies should be directed to expand use of categorical exclusions under NEPA and Section 106 just as the Federal Highway Administration and the Federal Transit Administration did last year under MAP-21.

Congress should consider steps that minimize or eliminate federal permitting fees and lease rental for broadband facilities. Any dollars spent on federal right-of-way is a dollar unavailable for network. Where economics of deployment are marginal, some people won't be connected or upgraded when they otherwise could be.

Congress also should encourage better interagency coordination. Permitting delays are most frustrating when a fiber route crosses several agency lands where more than one agency must approve our request. We are held hostage to whichever review is slowest.

This committee could also examine some of the other barriers to broadband deployment. It could help ensure that we have equal and nondiscriminatory access to municipal and co-operative poles. We are compelled to make our poles available to other providers but co-ops, munis, and public utility districts routinely deny us access or demand unreasonable fees.

Congress should ensure municipalities can't discriminate in access to public rights-of-way. Too many jurisdictions charge us an unreasonable rate for permission to place our facilities in the public right-of-way. And many others give providers, especially municipal systems, free access when we are assessed discriminatory franchise fees, taxes, permit requirements, and rights-of-way fees.

Congress should also clarify the limited rights of railroads in rights-of-way that are granted by the government. It should confirm that other users have reasonable, cost-effective access to those public corridors.

We have seen signs of improvement on federal rights-of-way issues, and we welcome the President's 2012 executive order. We appreciated the White House OSTP's review of the categorical exclusions and the Broadband Opportunity Council's attention to access and permitting. And Congress has helped with measures like MAP-21 and the legislation being discussed today. These are all positive starts.

We look forward to working with Congress, with the federal agencies and the White House to help promote needed broadband infrastructure investment, especially in rural areas.

Thank you for letting me appear today, and I will welcome your questions.

[The prepared statement of Mr. Benedict follows:]



Testimony of

Jeb Benedict

Vice President, Federal Regulatory Affairs and Regulatory Counsel

CenturyLink

"Breaking Down Barriers to Broadband Infrastructure Deployment"

Subcommittee on Communications and Technology,

Committee on Energy and Commerce

United States House of Representatives

October 28, 2015

Mr. Jeb Benedict, Testimony before the Communications and Technology Subcommittee

Chairman Walden, Ranking Member Eshoo, and other distinguished Members of the Committee, thank you for having me here today.

My name is Jeb Benedict and I am Vice President of Federal Regulatory Affairs & Regulatory Counsel at CenturyLink. In my role at the company I have worked with many federal agencies over the years and encountered a wide array of issues relating to securing access to federal lands and facilities for broadband and telecommunications.

Let me start by saying thank you for your recent introduction of the Broadband Conduit Deployment Act of 2015. Measures such as this will help incrementally to make it easier, faster, and more cost-effective to connect more Americans to high-speed broadband. It is an excellent example of what Congress and federal agencies can do to help facilitate broadband deployment and network investment.

We encourage the subcommittee to consider ways to help facilitate broadband investment and deployment. One important area is by helping make it faster and less expensive to access federal lands.

CenturyLink owns and operates a nationwide broadband network and extensive local facilities in portions of 37 states, serving 12 million telephone lines, more than 6 million broadband connections, and dozens of data centers. Our local voice and broadband network covers nearly 600,000 square miles -- an area roughly equal to 22 states, including many low density and difficult-to-serve areas and tribal lands. Between our local and national network and our Internet backbone, we have more than 250,000 miles of domestic fiber deployed and more a million miles of copper cable. We also provide the



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essential voice and broadband connectivity for tens of thousands of wireless towers nationwide. Wireless providers across the country rely on our wired network to deliver their service.

Delivering the voice and broadband capabilities that Americans expect requires a huge and ongoing investment. With the dramatic growth in bandwidth demand, providers like CenturyLink must increase capacity by perhaps 30% every year simply to keep pace with rapidly rising bandwidth consumption, even apart from expanding or upgrading network in rural areas. CenturyLink alone invests hundreds of millions of dollars annually in its network.

Given that vast network, we have many right of way arrangements with federal land use agencies, and we pay substantial fees to federal agencies for access to federal lands and facilities. We have access arrangements with virtually every federal agency, often with history going back decades. Our employees work closely with federal land use employees around the nation. We know them as dedicated public servants, professionals who take their responsibilities seriously, and we value our constructive relationships with them. Even so, the costs and delays associated with access to federal lands for broadband deployment and upgrades pose a real and frustrating problem.

On federal lands, we have a wide range of network facilities. As you would expect, however, the vast majority are buried or aerial cable and fiber, typically in or adjacent to the shoulder of a road passing through federal lands. Our network is critical to the communities we serve, and we genuinely believe our facilities provide a pathway for economic prosperity.

We frequently seek to deploy a fiber run to our communities. For example, where an Idaho town's microwave connections were unable to keep pace with bandwidth needs, we sought a permit to

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trench fiber in the shoulder of the U.S. highway into town to provide more robust capacity. Where a group of South Dakota wireless towers needed fiber upgrades to enable mobile broadband, we sought permission to add fiber to the existing telephone poles serving those community's towers with fiber for next generation connectivity.

The costs and difficulty of access to federal lands add to the costs of constructing, operating and upgrading network nationwide, especially when deploying or upgrading broadband in rural areas and tribal lands.

(1) Permitting delays. While fees and lease terms increase costs, the review and permitting processes, especially for new or upgraded facilities on federal lands, often impose unreasonable delays that add to costs and heavily impact the time to deploy and upgrade networks. Broadband deployment and needed upgrades to rural communities and urgently needed connections to wireless towers are routinely delayed because of the slow permitting and review process. In CenturyLink's experience, permits from the Bureau of Indian Affairs take more than 6 months. Those from the Bureau of Land Management and the U.S. Forest Service routinely take 12 to 15 months, even for renewals of existing rights of way. The National Park Service and Department of Defense are also troublingly slow. On state and private lands, in contrast, arrangements are completed in just weeks.

In one example, we sought to over-lash fiber on existing copper cable on existing poles along a U.S. highway – hardly a controversial installation. But after endless delays, we rerouted our fiber – using a longer and much costlier route over private land -- to bypass the federal land because we could simply wait no longer. But with 28% of U.S. acreage managed by the federal government, more often we cannot serve a community without waiting for access to federal agency right-of-way.

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Our Connect America Fund commitments to the FCC reflect our eagerness to deploy broadband to very rural communities that are otherwise economically impractical to serve. We have committed to build to 1.2 million unserved or underserved households and businesses over 6 years. But in these economically challenging areas, the delays and costs of access to federal lands will have a bearing on how many people we can reach and how long they will need to wait. Other factors being equal, communities adjacent to federal lands will necessarily receive lower priority in broadband investment and will wait longer for deployment and upgrades. It should not have to be this way.

Working with these agencies, we realize that they face a challenge of resources. Even as overall agency funding has increased from prior years, the resources allocated to land use permitting staffs in the field have generally declined. Simply put, in allocating agency budgets, these agencies' headquarters have not been treating the permitting function as an internal priority. Offices are commonly under-staffed. But if agency heads in Washington cannot allocate them a larger share of department resources, then we at least believe that Congress can ask them to give broadband deployment applications priority over other permitting and land applications (like electric utilities commonly receive).

(2) Need for broader use of categorical exclusions. CenturyLink supports good stewardship of public lands and strives to follow responsible environmental practices. But too often process delays are for environmental reviews that are surely excessive.

Outside Santa Fe, New Mexico, CenturyLink applied to the Bureau of Land Management to run fiber in a highway shoulder. BLM advised us that our permit requires a detailed biological study -- despite the fact that the fiber will be installed 18 inches from the pavement. The agency's Biological

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Study identified the region as potential habitat for the "Hookless Cactus." Prior to the permit being issued, a biologist indicated that the study could only be completed when the plant is in bloom – which is limited to late April or early May. If the study was not completed then (and the company was cautioned it easily might not), CenturyLink would need to wait for the following year until a new study could be completed.

Now, we do not advocate ignoring statutory requirements such as the National Environmental Policy Act. But in this example – as in virtually all of our applications -- we are talking about requesting permits in areas that have already been previously disturbed by construction and use of a highway. The incremental impact of our facilities on federal lands is truly minimal, yet we have incurred environmental delays even when requesting to overlay new fiber over existing copper wire on existing telephone poles along the roadway.

To facilitate broadband infrastructure, federal land use agencies should be directed to expand use of categorical exclusions under NEPA, as the Federal Highway Administration and the Federal Transit Administration have done, to exempt previously-disturbed areas from detailed environmental review.

(3) Lease costs. Lease costs have a meaningful impact, as a dollar spent on fees or right of way is a dollar unavailable for actual network. Our projects are budget-limited, so added costs for right of way can mean some households in borderline neighborhoods – those where the economics of deployment are marginal -- will not be connected or upgraded, when they otherwise could be.

While it is understandable that some agency officers seek to maximize lease revenue, we believe broadband infrastructure is a public service distinct from other commercial uses. We would

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recommend that access be at no cost or minimal cost, rather than at some ostensible commercial valuation charged per square foot.

We had one agency assess CenturyLink separate charges for fiber and copper located in the same right of way (even on the same poles), threatening to double the costs of access. To its credit, the agency eventually agreed that copper and fiber facilities are not separate uses warranting separate assessment. In another case, a local military based delayed broadband availability to military offices and families by imposing unreasonable fees and permitting demands. This needlessly delayed delivery of service to base offices and residents.

Even apart from cost concerns, lease terms vary widely and too often broadband providers face unreasonable demands or regulatory interpretations.

(4) Lack of interagency coordination. Federal permitting delays are particularly frustrating because a fiber route often crosses several agency lands, or more than one agency must approve our request. We are held hostage to whichever review is slowest. Outside Las Vegas, Nevada, CenturyLink has an existing U.S. Forest Service permit to provide telecom services to the mountain communities just outside the metropolitan area. The company's facilities were placed at an interim site but need to move to a more permanent location nearby. The Forest Service determined the area to be a habitat for the Blue Winged Butterfly, so we have been told that an amended permit will require approval from both the U.S. Forest Service and the U.S. Fish and Wildlife Agency. The Forest Service, although sympathetic, cannot tell us how long it will take for this amended permit to be issued but, because of multiple agencies need to sign-off, its rough estimate is 3-5 years.

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We cannot justify investing in temporary facilities, so broadband upgrades will be denied to homes and businesses in that community for a period of years -- all because two agencies do not coordinate their efforts.

We have seen some hints of improvement on land use issues, as more people begin to recognize the importance of broadband infrastructure and access to federal lands and facilities. We welcomed the President's June 14, 2012 Executive Order and appreciated the White House Office of Science & Technology Policy's review of categorical exclusions and the Broadband Opportunity Council's attention to access and permitting. We also valued the Federal Highway Administration's and Federal Transit Authority's January 2014 expansion of their categorical exclusions to exempt previously-disturbed roadway shoulders and medians from detailed environmental review. But these positive steps have had little real impact yet.

CenturyLink supports legislative efforts undertaken by the Committee to lower the cost of broadband deployment by removing delays and uncertainty about access to federal lands and facilities and from the federal-permitting processes. In particular, CenturyLink would welcome legislation that:

- 1) Speeds access to rights of way, by directing federal agencies to make broadband infrastructure applications a priority and requiring permitting shot-clocks.
- 2) Expands categorical exclusions for previously-disturbed areas.
- 3) Minimizes or eliminates permitting fees and lease rental for rights of way or access for broadband facilities.
- 4) Encourages inter-agency coordination.

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CenturyLink also encourages the Committee to examine some of the many other barriers to broadband deployment. It should consider legislation that:

- Ensures equal and nondiscriminatory access for commercial broadband providers to municipal and cooperative poles, under reasonable and comparable terms and conditions. CenturyLink is compelled by law to make its poles available to other providers, even competitors, at modest cost-based rates. Yet coops, munis, and public utility districts routinely deny us access and demand grossly unreasonable fees. Congress should act to create a level playing field, and consequently CenturyLink supports the Committee's plans for legislation on access to poles, ducts and conduit.
- Ensures municipalities cannot discriminate in access and terms and conditions for public rights of way. Too many jurisdictions charge us unreasonable rates for permission to place our broadband facilities in the public rights of way, handicapping our ability to deploy fiber. It is especially galling when other providers, especially as municipal broadband systems, receive access at no cost, while competitors like CenturyLink are assessed discriminatory license or franchise fees, local taxes, permitting requirements, and rights-of-way fees.
- Clarifies the limited rights of railroad rights-of-way granted by the government, to confirm that other users have reasonable, cost-effective access to those public corridors. Railroads too often have unrealistic views about their rights to these public corridors, and impose unreasonable rates and conditions on broadband network providers like CenturyLink.

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Through our products and services, CenturyLink connects communities and helps strengthen businesses from Main Street to Wall Street. CenturyLink is proud of the breadth of its network across America, and it values its relationship with federal agencies. Indeed, we are fortunate to count many federal agencies as our customers. But federal land use and rights of way policies should not be the obstacle they are to the timely and efficient deployment of the nation's needed advanced telecommunications infrastructure.

We look forward to working with Congress, federal agencies, and the White House to address and advance these important issues. I thank the Committee for allowing me to appear before you today and look forward to answering any questions you all may have.



Mr. WALDEN. Mr. Benedict, thank you for your testimony. We appreciate it.

We will now go to Ms. Deb Socia, who is the executive director, Next Century Cities. Ms. Socia, thank you for being here today. We look forward to your testimony.

#### STATEMENT OF DEB SOCIA

Ms. SOCIA. Thank you. Good morning, Chairman Walden, Ranking Member Eshoo, and distinguished members of the subcommittee. My name is Deb Socia, and I am the executive director of Next Century Cities, a bipartisan city-to-city initiative with 120 member communities across the country. Our leaders are dedicated to ensuring that all have access to fast, affordable, and reliable broadband.

High-speed internet access is essential from our smallest community, Alford, Massachusetts, to much larger cities like Los Angeles. Our members are committed to universal high-quality internet access from multiple providers, and not just for economic development but to improve the quality of life for everyone in the community. Our communities are doing yeomen's work, wiring businesses, schools, and residents.

On behalf of our membership, representing 25 million Americans, our message today is simple. This is hard work, and we welcome bipartisan federal leadership to reduce the cost- and time-intensive burden on Next Century City members and communities across the Nation. For example, easing access to federal land and assets for those deploying next-generation networks will encourage investment from both public and private entities. Dig-once policies will reduce capital costs and streamline new broadband deployments.

Consider Santa Monica, California, which adopted "Dig-Once" some 20 years ago, thus lowering the cost of both public and private investment throughout the city. The city leases to many ISPs, and that means real competition for local businesses. They also use their conduit and fiber to connect more than 100 buildings and deliver wireless connectivity to all major city corridors.

Elsewhere, Mesa, Arizona, has used "Dig Once" to encourage private sector investment from both ISPs and from high-tech firms that can use the conduit to establish redundant fiber pathways. And in building its municipal fiber network, Longmont, Colorado, realized cost savings in connecting some neighborhoods because they had already been built with conduit.

This July, Next Century Cities released a comprehensive policy agenda identifying concrete steps that all policy stakeholders could take from government officials to community members to members of the civil society of non-governmental agencies and institutions. All can take steps to help achieve fast, reliable, and affordable internet access. And our recommendations included "Dig Once" approaches, a low-cost solution at all levels of government.

Next Century Cities believes that conduit can make significant difference, particularly at key bottlenecks such as bridges, overpasses, and railroad crossings. Particularly in rural areas, the cost of deploying fiber is far higher at these bottlenecks. Navigating these bottlenecks is especially challenging for new entrants, wheth-

er local companies, local governments, or other entities that lack the existing infrastructure of long-established providers.

We are particularly interested in your deliberations on pole attachments. Some of our members own their own poles. Others have struggled to gain access to privately owned poles in a timely manner. So we are uniquely suited to participate in these conversations.

In our experience, one of the fundamental challenges with pole attachment is not just the cost but the time it may take for make-ready to occur, despite the FCC's existing shot-clock order. To the extent the FCC is directed to examine this subject, it should investigate both time and costs. We believe it is useful to have more information on the location of poles and ducts.

The one thing we are concerned about is the significant burden this mandate may place on cities and small utilities. We therefore encourage Congress to focus on the larger utilities that will cover the majority of our population rather than on the smaller utilities and cities that may not have yet fully computerized records.

We would like to stress that while pole attachments are a concern for some network deployers, we hear as much or more frustration about the challenge of crossing railroad rights-of-way, and we hope that Congress will soon address that potential barrier to investment.

Day by day, the need for fast, affordable, and reliable broadband becomes more evident. Communities across the country are recognizing this urgent need and developing the critical broadband infrastructure their residents demand. And it is an issue that transcends partisanship here in D.C. and in communities nationwide.

I am encouraged that the subcommittee has chosen to hold this conversation today. Hearings such as this can provide a critical platform for communities to share their experiences and develop opportunities for collaboration with federal policymakers.

I look forward to continuing to work with members of the subcommittee and your colleagues to ensure that communities across the country can enjoy the next-generation broadband that is now crucial infrastructure for all citizens.

Thank you.

[The prepared statement of Ms. Socia follows:]



**Testimony of Deb Socia**  
**Executive Director of Next Century Cities**  
**Before the**  
**Subcommittee on Communications and Technology**  
**Energy and Commerce Committee**  
**House of Representatives**  
**on**  
**“Breaking Down Barriers to Broadband Infrastructure Deployment”**  
**October 28, 2015**



Good morning, Chairman Walden, Ranking Member Eshoo, and distinguished members of the Subcommittee. My name is Deb Socia, and I am the Executive Director of Next Century Cities, a bipartisan city-to-city initiative with 120 communities across the country with leaders dedicated to ensuring access to fast, affordable, and reliable broadband Internet for all.

High-speed Internet access is essential for our communities from our smallest community, Alford, Massachusetts to the much larger city of Los Angeles. In joining Next Century Cities, our members have agreed to the following six principles:

- **High Speed Broadband is Necessary Infrastructure**
- **The Internet is Nonpartisan**
- **Communities Must Enjoy Self-Determination**
- **High Speed Broadband is a Community-Wide Endeavor**
- **Meaningful Competition Drives Progress**
- **Collaboration Benefits All**



Our communities are committed to universal, high quality Internet access from multiple providers, not just for economic development and quality of life but to ensure the entire community benefits.

They are doing the yeoman's work of wiring businesses, schools, and residents. Sometimes through community and municipal broadband networks, other times through innovative public private partnerships. On behalf of our membership, our message today is simple: this is hard work, and we welcome federal leadership to reduce the cost- and time-intensive burden on Next Century City members and communities across the nation.

Easing access to federal land and assets for those deploying next-generation networks will encourage investment from both public and private entities. Dig once policies will reduce capital costs and streamline new broadband deployments. Assessment of make-ready costs will help new entrants design their business models.

Next Century Cities communities have experience in many of the issues under consideration in these bills - in particular, local dig once policies have been a powerful driver of many of our members' successes.

Consider Santa Monica, California, which adopted dig once some 20 years ago, thus lowering the cost of both public and private investment throughout the city. The city leases access to many private ISPs -- that means real competition for consumers -- even as it also uses its conduit and



fiber to connect more than one hundred buildings and deliver wireless connectivity in all major city corridors.

In the Pacific Northwest alone, Seattle has eased private investment and built many miles of publicly owned conduit with its dig once approach. Mount Vernon, Washington has reduced the cost of expanding its fiber to local business with similar strategies. In Oregon, meanwhile, Sandy's dig once policies lowered the cost of its municipal gigabit fiber optic network, which has been an overwhelming success.

Elsewhere, Mesa, Arizona has used dig once to encourage private sector investment both from ISPs and from high tech firms that can use the conduit to establish multiple fiber paths for redundancy. In building their municipal fiber network, Longmont, Colorado, had lower costs in connecting some neighborhoods because they had been built with conduit from the start.

This July, Next Century Cities released a comprehensive policy agenda identifying concrete steps that all broadband stakeholders—government officials, community members, and the “civil society” of nongovernmental organizations and institutions—can take to help achieve fast, reliable and affordable Internet access. One of our recommendations were dig once approaches -- as they are a low-cost solution across all levels of government that can have a significant impact over time.

We've heard that communities face challenges in implementing dig once across our country's varied federal highways, but Next Century Cities believes that conduit can make a significant

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difference at key bottlenecks, such as bridges, overpasses, and railroad crossings. Particularly in rural areas, deploying fiber can be affordable until the path has to cross one of these bottlenecks. Attaching fiber to a bridge may require shutting down lanes of traffic and hiring a flag crew. Negotiating crossings with railroad right of way is legendary in its difficulty. Overpasses may require directional boring to go under access ramps or nearby roads. Each of these situations could be improved with access to well-designed conduit.

Navigating such bottlenecks is especially challenging for new entrants, whether local companies, local governments, or other entities that lack the existing infrastructure of long-established incumbent providers.

We are particularly interested in your deliberations over pole attachments. In some cases, our members own poles and in others our communities have struggled to gain access to privately-owned poles in a timely manner. So we are uniquely suited to participate in these discussions and look forward to assisting the subcommittee on the matter.

In our experience, one of the fundamental challenges with pole attachment is not just the cost, but the time it may take for make-ready to occur. To the extent the Commission is directed to examine this subject, it should investigate both time and costs.

We believe that more information will be useful in this space and appreciate the intent behind having all utilities report the location of their poles and ducts. At the same time, we are cognizant of the impact this may have on small utilities. We encourage Congress to focus first on the larger

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utilities that will cover the majority of our population and give more time to the smaller utilities that are may not yet have fully computerized records that would ease complying with such a mandate.

We would like to stress that while pole attachments are a concern for some network deployers, we hear as much or more frustration about the challenge of crossing railroad rights-of-way. We hope that Congress is able to apply the same attention to that potential barrier to investment as to pole attachments.

Day by day, the need for access to fast, affordable, and reliable broadband Internet access becomes more and more evident. Communities across the country are recognizing this urgent need and developing the critical broadband infrastructure their residents demand. I am encouraged that this Subcommittee has chosen to hold this conversation today; as Next Century Cities' policy agenda makes clear, the federal government can play a central role in assisting communities in the development of broadband infrastructure. Hearings such as today's can provide a critical platform for communities to share their experiences and develop opportunities for collaboration with federal policymakers.

I look forward to continuing to work with Members of this Subcommittee and your colleagues to ensure that communities across the country can enjoy the next-generation Internet that is now critical infrastructure for all citizens. Thank you.



Mr. WALDEN. Ms. Socia, thank you for your testimony. I want to thank all of you. It has been most helpful in our efforts here.

I am going to start off with a couple of questions. First of all, I want to tell you what we face in a district like mine, which would stretch from the Atlantic to Ohio. It is one of the biggest land masses for a single district other than some of the single-member states. I was in Mitchell, Oregon, recently on a Sunday afternoon with a town hall, population 126, 126 people, and there were probably 20 or 30 people at the town hall. They have been waiting 2 ½ years for the Bureau of Land Management to finish a NEPA so that they can plug four power poles into the ground and finally get three-phase power to this town, 2 ½ years and still don't have a decision.

Meanwhile, they were pretty excited because finally they have some level of cell service if you are a Verizon customer because they bought these little extenders. And so now in downtown Mitchell, Oregon, which is about a block-and-a-half, if you are a Verizon customer, you can actually get cell service.

There is a major east-west road that goes through this area with thousands of people every day going past. The city has a payphone booth there—the younger people in the audience, we will explain what that is/was—that the city pays for and a local grocery store houses just so they have a phone in town.

So this occurs all across the country. Fifty-five percent of my district is federal land. We face this NEPA issue on everything. And it shouldn't take 2 ½ years to figure out if you can put four power poles in the ground, but it does and they are not done yet.

So I appreciate your testimony on what we are trying to do here. I want to ask Mr. Bergmann more about the shot clocks because I am intrigued by what you talked about there and others, as well as if you could—all of you are open to this one on these twilight tower issues and if you can talk in layperson's terms about what that really means is going on out there.

So Mr. Bergmann and others, we will start with you. Shot clocks, do they work? We have tried to put them in other bills because we think they work, but clearly, if the GSA took 3 years to do something we mandated them 60 days to complete, they have a problem.

Mr. Bergmann?

Mr. BERGMANN. Thanks so much for the question, Mr. Chairman. And unfortunately, the experience you describe is not an uncommon one when looking to cite on federal lands, and it is something that our members have experienced particularly in parts of the country where extending coverage is really critical to the local economy and to public safety. Making sure that we have wireless infrastructure siting on federal lands is really key to that mission.

So learning the lesson from what Congress did in 2012 I think is really instructive. When Congress adopted a shot clock for the ability to co-locate in the municipal context, what we found is that the process started to move much more quickly. And we found that with the FCC's 2009 shot clock order, in both cases applications that had been backlogged started to move. Our folks were able to deploy. And now we need this same sort of discipline to the process on the federal side as well, too.

Mr. WALDEN. OK. Others on the panel want to comment on that?

Ms. SOCIA. I will mention that this issue applies to our rural communities as well. And one of our rural communities was trying to build a public safety network, and it took them 2 years longer because of the time required to get permitting. And in some of our urban communities, they suffer with long-term permitting issues as well, and in some cases, our cities have determined to just find more expensive workarounds—

Mr. WALDEN. Right.

Ms. SOCIA [continuing]. Rather than ask for permission to use federal lands.

Mr. WALDEN. We are fighting this with a major power line, the Boardman to Hemingway line. And to avoid going on the federal ground, I am convinced Idaho Power is picking the private ground because they can use their powers for eminent domain, which they are trying not to do. But it is taking irrigated ag land out of production because they just don't want to fight this fight on the federal ground that is right there.

Ms. SOCIA. That is what we are finding as well.

Mr. WALDEN. Mr. Benedict?

Mr. BENEDICT. We have similar frustrations. And I should also add that there really is no wireless without wires.

Mr. WALDEN. Right.

Mr. BENEDICT. A delay that is affecting a cell tower, even once resolved, if we are facing delays getting our fiber rooted to the tower, it is still out of operation.

Mr. WALDEN. Yes. Ms. Gold?

Ms. GOLD. My members face all the same frustrations. I think the example I used was a 250-mile fiber route where they built the two ends, completed two ends and waited for the 8 miles in between on the federal property an additional 6 months.

Mr. WALDEN. Out of 250 miles—

Ms. GOLD. Right.

Mr. WALDEN [continuing]. There was 8 miles of federal—

Ms. GOLD. Eight miles and the—

Mr. WALDEN [continuing]. See, I am just talking four power poles, 2 ½ years.

Ms. GOLD. And a similar company has pending federal permitting applications that have been in place since May of 2014. So I think the frustration is real.

Mr. WALDEN. Yes. Thank you all.

We will turn now to the gentlelady from California, Ms. Eshoo, for questions.

Ms. ESHOO. Thank you, Mr. Chairman. And again, thank you to each of the witnesses. This is a softball question. Do you all support the "Dig Once" policy?

Ms. GOLD. Yes.

Mr. BENEDICT. Yes.

Mr. BERGMANN. Yes.

Ms. ESHOO. Terrific. A plus. You all passed.

Last week, there were several elected officials in one of my local communities that wrote to me about the need to ensure that federal policies don't undermine their local permitting decisions for wireless facilities. And the Communications Act and the Spectrum Act have frequently been cited as provisions that limit local deci-

sion-making. It is a big issue for local government. And do you find that the bill and the ideas that we are considering today that are under discussion that would weaken or alter local permitting decisions?

Ms. GOLD. I don't see that. My members, generally when they get to a community, the community is so happy to have the deployment of fiber networks that they work with them, and this is a subject that we talk to our communities about a lot, how they need to situate themselves in order to welcome fiber providers.

Ms. ESHOO. They don't find anything—

Ms. GOLD. So I don't see—

Ms. ESHOO [continuing]. Menacing in what we are—

Ms. GOLD. No.

Ms. ESHOO [continuing]. Doing relative—

Ms. GOLD. I—

Ms. ESHOO [continuing]. To that issue?

Ms. GOLD. No.

Ms. ESHOO. Good. Ms. Socia—that is a lovely name—I regularly hear from constituents that are mentioned in my opening statement who are frustrated by the high cost of broadband and the lack of choice in service providers. Your members include two of my constituent communities, the city of Palo Alto and Santa Cruz County. Have you seen evidence that the cost and speed of service are improved when local governments deploy high-speed broadband in their communities?

Ms. GOLD. Indeed, we have found that to be true. Whenever there is a new entrant into the market, it has become very clear that more investment happens, not less, and that in fact the cost for broadband reduces and the speed increases.

Ms. ESHOO. On both fronts, that is excellent.

Mr. Benedict, in July we heard from Governor Lewis of the Gila River Indian Community about the challenges of bringing broadband to tribal communities. You noted in your testimony that it can be especially difficult for your company to deploy or upgrade broadband on tribal lands given the cost and the challenges in accessing federal lands. If the six draft bills before the subcommittee were enacted into law, would CenturyLink be able to expand its deployment into unserved tribal land? It is a big issue that many of us have raised for several years here, and it really is a form of neglect, real neglect in our country. So can you enlighten us on this?

Mr. BENEDICT. Well, the challenges of course are low population densities. And with the size of our footprint, we have a great many areas that are low density. We also have made a commitment to the FCC for Connect America Fund build-out to 1.2 million locations, including in tribal communities.

That said, the types of problems we are talking about here today are incremental cost and incremental barriers to our broadband deployment. As a consequence, you know, measures such as are considered in the draft legislation and in the "Dig Once" bill would in fact help reduce our costs.

Ms. ESHOO. Well, that is encouraging.

To all of the witnesses, we are talking about built-out of wireline and wireless broadband infrastructure. But given that the consumer experience also includes the use of Wi-Fi and other unli-

censed uses, I want to make sure that we don't forget about them. So how do Wi-Fi and unlicensed uses factor into the infrastructure investment discussion that we are having today? For all of you, who would like to go first? Mr. Bergmann.

Mr. BERGMANN. I am happy to take the first pass. So we certainly support deployment in both licensed and unlicensed spectrum, and so we are big supporters of that from a spectrum perspective and also from an infrastructure perspective as well, too. We want to make sure that those facilities out there—and just to your first question, Congresswoman, wanted to make sure—California adopted a streamlined procedure just 3 weeks ago.

Ms. ESHOO. Yes.

Mr. BERGMANN. So the steps that you all are contemplating, I think, are very consistent with that overall reasonable framework for making sure that local officials can perform their roles but that we have some reasonable and predictable deadlines associated with the process.

Ms. ESHOO. Great. Thank you very much.

Mr. WALDEN. Before I move on to, let's see, Mrs. Blackburn, I want to introduce into the record, ask unanimous consent, a statement from the American Public Power Association giving APPA's analysis of the draft bill on pole attachments. Without objection.

[The information appears at the conclusion of the hearing.]

Mr. WALDEN. The chair will hear from others in the utility world about their views. I know they are not on this panel but they are not unnoticed.

So now, let's go to Mrs. Blackburn for 5 minutes.

Mrs. BLACKBURN. Thank you, Mr. Chairman. And I am going to try to not take the 5 minutes.

Mr. Bergmann, I want to come to you. Let's talk about these master forms, contracts, fee schedules that were due in 2012. I think the GSA missed that deadline. And I want to ask you about your opinion on that, what more should we do or have we reached the final goal on that? So your comments, please.

Mr. BERGMANN. Thank you so much.

So the GSA's adoption of the master forms and contracts, as you correctly point out, was over 1,000 days late. So we would have loved to have seen that process happen sooner, but we are very glad that they are adopted. Now, the key is to get them implemented. We need to make sure that federal agencies actually put them to use if we want to get the benefit out of those master forms and contracts. So oversight from this subcommittee would be very helpful to make sure that agencies adopt them and that they apply them in a consistent manner.

We often find from base to base or office to office in agencies that processes are not applied in a consistent manner. So your help and oversight with that would be extremely helpful.

Mrs. BLACKBURN. OK. Thank you. We will continue that oversight, and I think we probably had the frustration that was shared by many of you with the delay in hitting that deadline.

Mr. Benedict, I want to come to you. You are hearing a good bit, and the chairman talked about the federal right-of-way and the issues that we are seeing there. In Tennessee I have 19 counties, 10,000 square miles. And in that I have got a lot of rural, I have

got a lot of underserved areas. And they are adjacent to federal lands or there is critical defense and energy projects that are around these areas.

But it seems that the communities need the Federal Government out of the way in order to allow broadband because not being able to get that in there is stifling educational opportunities and economic development. And we hear about it every single time, and rightfully so we hear about it every single time we are in those communities.

What I would like to do is to hear from you and any of you on the panel what the Administration could do to improve the inter-agency coordination without congressional intervention, just decide today that they are going to do this so you don't have the ridiculous issues of years of being required to complete a NEPA process for, as Chairman Walden said, putting in a pole for an attachment. So if I could hear from you first and then any others that want to add.

Mr. BENEDICT. Well, one thing that could help significantly is taking steps to streamline applications that have minimal real environmental or historical impact, and that is through the obscure categorical exclusion process. We have actually, as an industry group, been talking with the White House Office of Technology Policy on measures that the Administration could undertake directly—

Mrs. BLACKBURN. OK.

Mr. BENEDICT [continuing]. As they are directed to agency to try to streamline the process where installation of new wireless or wireline facilities actually has minimal environmental impact because it is in previously disturbed areas, consistent with what Congress has done on MAP-21.

Mrs. BLACKBURN. Yes. Thank you. Anyone else to add a point?

Ms. GOLD. I do think the Broadband Opportunity Council looked at this issue, and they have made recommendations about streamlining the processes. I just think it would be legislative oversight and authority would be helpful to making the executive action more—

Mrs. BLACKBURN. So continue to hold them accountable. Excellent.

Thank you. I yield back.

Mr. WALDEN. The gentlelady yields back the balance of her time. The chair now recognizes the gentleman from New Jersey, Mr. Pallone.

Mr. PALLONE. Thank you, Mr. Chairman.

I wanted to start with Mr. Bergmann. For most of us, broadband has become an essential part of our day-to-day lives. Unfortunately, for over 60 percent of those living in tribal lands access to the kind of broadband remains out of reach. In many of these tribal areas, wireless services may be their best chance of getting online. So I just wanted to ask what is the industry doing to promote build-out on tribal lands?

Mr. BERGMANN. Congressman, thank you for the question. And I recall that you care deeply about tribal lands. The work that you are doing today can really make a big difference.

In that part of the country, much of the land is controlled by federal agencies, so taking some of the steps that we have been talk-

ing about today to put some deadlines on BIA, on BLM can help us build out infrastructure to those areas more quickly.

I might point out another area as well, too, which is that the FCC has talked about ongoing funding mechanisms to support build-out in rural areas and in tribal areas for mobile broadband. And so the attention of this committee to making sure that those mobility funds and tribal mobility funds are fully implemented can also help as well.

Mr. PALLONE. All right. Thanks.

Ms. Socia, for much of the country, the private sector has done a good job making sure consumers have access to high-speed broadband, but still gaps remain, and I don't think we will find the silver bullet to close those gaps, which is why the draft bills we are discussing today try several different approaches. What do you think the Federal Government could do in striving for this goal? Do our discussion drafts help move us forward?

Ms. SOCIA. I think they do. I think also the acknowledgment that this is critical infrastructure has been very helpful. I think, as I mentioned earlier, thinking about those key bottlenecks is very helpful locally as well.

I think at the local level when it is difficult topology, when it is limited population density, there really isn't a financial model that makes it make sense for big companies to come in and build out and thinking about how we can help to incentivize that and to give local communities the capacity to make decisions about their own future.

So, for example, we have a rural community in Massachusetts that chose to build their own, Leverett, Massachusetts, because even their copper line was not really successful for them, and every time it rained, they couldn't call 911. And no one else wanted to build out so they took it upon themselves to do it. And so we really applaud that kind of local control and that local opportunity for our folks to be able to solve their own problems at that level.

Mr. PALLONE. Well, thanks. I know there had been a number of creative experiments with new ways of deploying fiber for high-speed broadband, and one of the most well-publicized efforts has been Google Fiber. So I was going to ask you what early lessons we have learned from these types of experiments in deploying fiber throughout the country?

Ms. SOCIA. So, one of the things we learned from that was that competition is great. And we all knew that competition is a good thing in any marketplace. When Google came in, the prices went down, the speeds went up. And we also learned that it is really important for communities and providers to work collaboratively to solve problems. And when they do, outcomes are positive. And the changes that our cities made to support Google they offered to all providers. That is a really helpful process for us to begin to think about how do we work collaboratively and how do we empower that local community to be part of the solution.

Mr. PALLONE. All right. Thanks a lot.

Thank you, Mr. Chairman. I yield back.

Mr. LATTA [presiding]. Well, thank you very much. The gentleman yields back.

And the chair now recognizes the Chairman Emeritus, the gentleman from Texas, for 5 minutes.

Mr. BARTON. Thank you, Mr. Chairman.

I am not as familiar with these issues as some of the other members of the subcommittee. I have looked at the draft bills, and I must say that I am a little bit troubled. I am a market person. I believe markets work. I believe open, transparent markets are better than regulated markets. I believe incentives are better than federal mandates.

I understand there are some real problems in siting on federal lands, and I understand that NEPA has been abused in ways that we didn't intend when that particular law was passed.

So my first question is just a general question. Are the problems that you folks are facing in your business models, are they primarily generated because of the problems dealing with federal lands and federal facilities, or do you think that there are broader problems in the private land private sector? Anybody can answer that.

Mr. BENEDICT. Well, I will begin. Our chief concern is on federal lands we face challenges in rights-of-way and property access everywhere, but the principal frustrations we run into are not state lands, they are not private landowners, but federal lands. And it is not because our permits will be denied; it is because of the processing delays. It is really a problem of process and not substance.

Our concern isn't with NEPA. Our concern isn't with the National Historic Preservation Act. It is just how these are carried out in ways that needlessly delay our ability to get broadband infrastructure upgrades deployed.

Mr. BARTON. Do the other panelists agree that your problems are primarily on federal lands and federal facilities?

Ms. GOLD. [Nonverbal response.]

Mr. BERGMANN. [Nonverbal response.]

Ms. SOCIA. [Nonverbal response.]

Mr. BARTON. I appreciate that. I just want to say I am troubled that we are beginning to take the position that access to wireless programs, wireless products, wireless services are some sort of an entitlement. Some people would hope that we would have a McDonald's on every corner but we let the market decide where we put McDonald's and Burger Kings.

Generically, I think we should let the market decide when and where broadband is deployed. It is obviously much better than the old copper systems and the old telecommunications systems we had only like 10 or 15 years ago, but to begin to take the position that somehow this is an entitlement that the most rural, least densely populated part of our country should have the same services as downtown Manhattan to me just is not correct.

In any event, the bills that deal with federal access, Mr. Chairman, I am generally supportive of, but I want to tread lightly in this area.

And with that, I would yield back.

Mr. LATTA. Well, thank you very much. The gentleman yields back. And the chair now——

Mr. BARTON. Oh, wait. If——

Mr. WALDEN. Oh, I am sorry.

Mr. BARTON. If I still have time if somebody wanted to ask me a question or——

Ms. ESHOO. I just have——

Mr. WALDEN. The gentleman yields? I thank the gentleman——

Mr. LUJAN. Mr. Chairman, the observation that I make, Mr. Barton is representing one of those rural states like Mr. Greg Walden and his—I was just sharing with our Ranking Member Eshoo is that you can board a plane in Albuquerque, New Mexico——

Mr. BARTON. I have done it.

Mr. LUJAN [continuing]. And stay on the internet until you land in New York or San Francisco or Washington, D.C., or Dallas, wherever you go. And so if the technology exists for us to be able to stay connected at 30,000 feet traveling at those speeds, it appears that the technology would exist to connect the United States of America. We just need to figure out what that piece is.

And so not necessarily from the perspective of, as I would describe it, as an entitlement, but connectivity is essential for safety purposes today, especially as we are seeing the abandoning of many of those antiquated copper systems that aren't being maintained and now even plain old telephone service is starting to lack in many of these communities as well.

So I think therein lies an opportunity where market forces have worked, satellite deployment in other areas where we can see how we can connect to other people.

Mr. LATTA. The gentleman's time has expired, and the chair now recognizes the gentleman from Pennsylvania for 5 minutes.

Mr. DOYLE. Thank you, Mr. Chairman. And I want to thank you for holding this hearing and thank the witnesses appearing before us.

I would also like to thank and commend the chairman and the majority staff for working with us to come up with a slate of legislative proposals that advanced our shared goal of promoting broadband deployment. I am particularly proud of the bipartisan legislation introduced by my good friend Anna Eshoo and Greg Walden setting the "Dig Once" policy into law. This is way overdue, and I encourage the committee to move forward on this bill.

Let me start by asking Mr. Bergmann a question. You mentioned in your testimony many of the challenges faced by wireless carriers in deploying wireless infrastructure on federal structures and federal lands. Specifically, you mentioned the need for Congress to encourage federal agencies to implement the common processing contracts established by GSA pursuant to the Spectrum Act. Do you believe that the draft bill directing adoption of these practices achieves that goal?

Mr. BERGMANN. Yes, sir.

Mr. DOYLE. Thank you. I support this bill also, and I think it is an example of smart, sensible policies that we need to advance wireless broadband deployment in this country.

I want to ask Mr. Benedict. I noticed in the draft bill that addresses pole attachments, I notice a change in current law. Among the many sensible reforms to pole attachment policy and data collection, I saw that the rates charged to ILECs like CenturyLink by energy utilities would be substantially reduced as you would pay



the FCC-regulated telecom rate for pole attachments under the draft bill.

I just have two questions about that. First, if ILECs were to pay a substantially lower rate to energy utilities for access to poles, who picks up the cost differential that results from that lower rate?

And secondly, can you explain the differences to us between the services that an ILEC currently receives under the current rate structure versus what I understand are scaled-down services available to service providers that pay that telecom or cable rate?

Mr. BENEDICT. Well, actually, our chief concern is having a more level competitive playing field when it comes to pole attachments. The FCC has taken some action to reform the process, but we still end up in a situation where ILECs commonly pay more on electric utilities than other attachers, particularly cable.

Mr. DOYLE. My understanding is you get more services for that than those groups that are paying the telecom or cable rate is under this new bill, is that equalized, you are paying that lower rate that the telecoms and cables pay or are you also getting that scaled-down service—

Mr. BENEDICT. Well—

Mr. DOYLE [continuing]. Or are you maintaining what you have?

Mr. BENEDICT. Well, the charges are also a portion according to either the space or the usage on the pole.

Mr. DOYLE. Sure.

Mr. BENEDICT. And to the extent that we are not imposing any larger burden on the pole owner, then rates should be comparable. There really shouldn't be a distinction between our fiber and another party's.

Mr. DOYLE. But if you are paying less, someone has got to pick up that—utilities are saying, well, they are just going to pass that on in the utility bills to consumers. So I guess I am just trying to understand what happens to that cost differential under that bill.

Mr. BENEDICT. Well, the FCC's oversight—and indeed States' oversights of ILEC pole charges, where they are regulated, which is not everywhere, that actually reflects costs from the pole based on publicly available information, public accounting information. So the numbers are not pulled out of the air. We face a different problem where we are talking about co-op or municipal-owned poles where they are not subject to that oversight.

But with electric utilities there is a measure of discipline that the FCC has helped enforce. Previously, we didn't have a clear right to attach, which left us in something of a less clear situation in terms of our rights, the rates that could be charged to us and the terms that could be imposed on us.

Ultimately, we all have an interest in advancing broadband deployment and broadband upgrades, and the cost of attachments are significant, especially in rural areas. If we were looking at a \$25 or a \$30 pole attachment rate and need to attach to 10 or 12 poles to reach a—

Mr. DOYLE. No, I understand that. I am just saying if your costs go down, somebody is picking that up and I am just curious who is picking up that additional cost.

Mr. BENEDICT. Well, I can't speak to that. But I can say, the costs are often higher than they ought to be—

Mr. DOYLE. Thank you.

Mr. BENEDICT [continuing]. Frankly.

Mr. DOYLE. I noticed a lot of green ties in the audience. I thought it was maybe an early St. Patrick's Day, but I understand that is the CenturyLink color. And everyone wears the green tie, so as an Irishman, I appreciate that.

Mr. Chairman, I yield back.

Mr. LATTA. All right. The gentleman yields back, and his time has expired.

The chair now recognizes himself for 5 minutes.

And again, I would like to thank the witnesses for being with us today. And this is a question to all of our witnesses today.

We have defined broadband in the draft legislation as a service capable of providing advanced telecommunications capability under Section 706, largely leaving the definition to the FCC's discretion. We have some reservations about whether a shifting definition will create uncertainty for both agency and broadband providers, for agencies denied applications for services they may argue is not broadband. And the question is, is there a better way to draft this definition? And, Ms. Gold, if I could start with you.

Ms. GOLD. We have argued before the FCC for the last year that they should get away from a speed measurement and they should be looking at the facility. Obviously, we have argued for a fiber-based facility because you can indefinitely expand the speed. I think that this constant resetting the goalpost has created some confusion. I think the Commission and Congress should be thinking long-term. What facility can deliver the broadband that this country will need 10, 15, 20 years from now rather than constantly arguing over what is the market-based speed that is acceptable because that is in a sense continual investment where one investment policy might be better.

Mr. LATTA. Mr. Bergmann?

Mr. BERGMANN. So I certainly share your observation that shifting broadband definitions make it challenging for providers to make decisions about whether to participate in federal programs.

I certainly note as well, too, that when aspirational definitions are adopted, that can sometimes put those public policy goals out of line with the broadband that consumers are actually adopting in the marketplace.

And I would note as well, too, that just last year when Congress spoke to a definition of broadband in the context of the farm bill, you all adopted a definition that was based on 4 megabits down, 1 megabit up, and there is some benefit to having definitions that reflect what consumers are actually purchasing because it allows providers to have a mix of technologies, to meet needs in different parts of the country with different challenges. It also enables competition to help drive subsidies in support programs as well, too. So certainly appreciate any guidance on that as well.

Mr. LATTA. Thank you. Mr. Benedict?

Mr. BENEDICT. Yes, well, we would agree that a general definition of a broadband facility would be more sensible than a definition tied to Section 706. The FCC already uses more than one definition of broadband, and frankly, the focus should be on the generic

use of the facility, not the specific speed or character of the end product that might be provisioned by it.

Mr. LATTA. Ms. Socia?

Ms. SOCIA. We might argue that primarily because we feel that our communities that are very rural, we really need to be thinking about how are we providing them with opportunities for education, for public safety, for transportation, for precision farming, for all the things that are so necessary now. And we think that definition is really helpful to folks in those communities to ensure that they end up with the opportunity to have the same resources as their friends across the country.

Mr. LATTA. Thank you. If I could follow up on a question that the gentlelady from Tennessee asked, Mr. Benedict, if I could ask you, the rural communities that are not adjacent to federal lands, how can we best encourage broadband development in high-cost areas without federal funding when you have these areas that are private lands next to federal? What would be the best way to go for those of you who don't get the federal funding?

Mr. BENEDICT. Well, we actually typically cross federal lands to access communities that may be adjacent or even many miles down the road. We are not simply talking about local broadband facilities that are deployed on federal lands but also long-haul and middle-mile facilities that are necessary to reach those communities. We may have a long run through a national forest in order to connect one community to a major hub.

Mr. LATTA. And, Mr. Bergmann, if I could, with my last 25 seconds, ask you, the environmental review process is very burdensome on federal lands. Is there a way to learn from the local review process when we are looking at the federal lands?

Mr. BERGMANN. Certainly. There are a number of challenges with the environmental review process, but certainly, an absence of deadlines is one of the chief challenges. So adopting a framework that is similar to what Congress did in the municipal side would be very helpful with that environmental review process as well, too.

Mr. LATTA. Thank you. And my time has expired.

And the chair now recognizes the gentleman from Iowa for 5 minutes.

Mr. LOEBSACK. Thank you, Chairman.

As I said earlier, I am really glad that the committee is addressing opportunities to expedite and streamline processes for build-out on federal property. It is very, very important. First thing I do want to say is I want to thank you, Ms. Socia, for your comments about rural broadband. I know I beat the same drum every time at these particular hearings, but given my district and it is not as big as Chairman Walden's by any means, but it is probably 12, 13,000 square miles, 24 counties in southeastern Iowa, and, you know, we do have some urban areas, got a town of 110,000, Davenport, about 100,000, 110,000, but I have so much in my area that is rural. And it is very, very difficult.

You mentioned the different aspects of not just economic development but challenges for the educational communities. I mentioned yesterday that a lot of our schools are connected to the ICN. That is the state-built pipeline, if you will, but a lot of those students, when they go home at night, they have homework and that home-

work often has to be accomplished, has to be finished on the internet. And they have very limited opportunities often to do that. So it is just so important.

And I am glad you mentioned the agricultural part of this as well. A lot of folks don't know that, the precision farming that you mentioned. It is absolutely critical nowadays in many parts of this country that folks be able to have that kind of broadband so they can connect to the internet so they can do the things that they need to do.

And I know that is not specifically what we are talking about here today, but at the same time, this is something that we have got to be thinking about whenever we talk about the expansion of broadband. And it is not just my district; it is all over the country obviously.

I just have one brief question for Mr. Bergmann, although before I forget, I should thank Ms. Eshoo again for her "Dig Once" legislation. Often, it is not the case in this body that we think very rationally about how to resolve issues it seems like. This is a total no-brainer and it has taken since 2009. It makes no sense to me for it to become this important and be before us so that we can deal with it.

But at any rate, Mr. Bergmann, you mentioned some of the benefits that could accrue to the Federal Government, in particular, if we can improve access for siting on federal properties. Can you elaborate on that a little bit if you can?

Mr. BERGMANN. So thank you. And we are certainly supporters of the "Dig Once" legislation as well, too, supporters of robust fiber. But as you know, you can't plug fiber into a school bus that is taking kids home in a rural area, but you can have an LTE connection so that kids in rural areas can take advantage of mobile wireless networks and the innovations that we are doing right now, whether it is m-learning, m-health, remote monitoring for your elderly in rural communities. There are some real opportunities. And access to federal properties in rural areas is a really critical issue.

So the steps that we have talked about today, establishing deadlines, making sure that reviews happen in parallel rather than one after the next, making sure that fees are related to the actual impact rather than just sort of other goals are all important steps that this subcommittee can take to promote that sort of wireless infrastructure in rural areas.

Mr. LOEBSACK. I think a lot of what we are doing is creating efficiencies, and sometimes people don't think of government being particularly efficient, but there are ways that we can do this, there is no question about that, and maybe even save taxpayers some dollars along the way.

You did mention, I think, in your testimony on page 3 that there would be revenue for the Federal Government. Can you talk about that a little bit as well?

Mr. BERGMANN. Sure. So whenever there is siting on federal lands, we are not asking for that access for free.

Mr. LOEBSACK. Right.

Mr. BERGMANN. We pay for that access. And so it produces revenue for the government when we are able to put those facilities on federal lands.

Mr. LOEBSACK. Is there any estimate as to how much that might be at this point?

Mr. BERGMANN. We would be happy to work with you to get back with your staff to see if can provide some of that information.

Mr. LOEBSACK. OK. Thank you. Thank you, Mr. Chair. I yield back the remainder of my time.

Mr. LATTA. Well, thank you very much. The gentleman yields back. And the chair now recognizes the gentleman from New Jersey for 5 minutes.

Mr. LANCE. Thank you, Mr. Chairman.

Ms. GOLD, when your member companies decide to trench fiber in a new location, I am sure that you calculate the cost associated with that. Do you also project possible delays in whether the deployment will be outweighed by the fact that it may take so long, and therefore, it is not economically feasible?

Ms. GOLD. For many of my members they are operating as local entities, and so they go ahead and they do a feasibility study—

Mr. LANCE. Feasibility study, yes.

Ms. GOLD [continuing]. And the time and cost are critical components of that feasibility study. So with my one member that was building a middle-mile network, they had no idea it was going to double the time it took to put in the federal permitting in the 8 miles. But for anybody going into a local community to actually do fiber to the home, time and cost are critical. So a private company may decide not to go to a community if there are sufficient constraints on how long it will take.

Mr. LANCE. And is it your experience that this is often the case, that where the projects are either delayed or do not reach fruition because of that?

Ms. GOLD. It is hard for me to answer that because the projects we see are where they are moving ahead. In other words, the community has already determined that they want this asset, and so they are working to make it come about as expeditiously as possible. Obviously, when they have to cross federal property and there is a delay, that is a fly in the ointment but—

Mr. LANCE. Your universe, therefore, may not be the complete universe because—

Ms. GOLD. Correct.

Mr. LANCE [continuing]. Of projects that you do not see because they have been abandoned?

Ms. GOLD. Exactly.

Mr. LANCE. Is there anyone else on the panel who would like to comment?

Ms. SOCIA. I would mention that—

Mr. LANCE. Ms. Socia?

Ms. SOCIA. Yes, thank you. In some cases our members have found that there has been a significant delay for one project, and in the next project they therefore choose not to go on federal lands and to instead really increase the cost by doing a workaround.

Mr. LANCE. I see.

Ms. SOCIA. And so it really is problematic for a lot of the communities that we support.

Mr. LANCE. And Mr. Benedict?

Mr. BENEDICT. We have run into similar situations. And if the cost or delay of securing that federal right-of-way gets to the point that it is unacceptable, if we find another way around, we are talking about a longer route. Our projects are typically budget-limited, which means that we have to scale back the amount of build-out in that local community. That basically means that there are houses, possibly businesses in that community that would have been upgraded that we now can't.

Mr. LANCE. Thank you. In your testimony, Mr. Benedict, you state, "CenturyLink is compelled by law to make its poles available to other providers, even competitors at modest cost-based rates. Yet co-ops, munis, and public utility districts routinely deny us access and demand grossly unreasonable rates. Congress should act to create a level playing field, and consequently, CenturyLink supports the committee's plans for legislation on access to poles, ducts, and conduit." Could you go into a little greater detail on that?

Mr. BENEDICT. Yes, certainly. The problem isn't universal, but it is too often the case that with co-operatives, public utility districts, municipalities that have their own poles, we have no clear legal right to attach and there is no state or federal oversight of the rates, terms, and conditions. And that can and does lead to unreasonable situations.

We have had a recent case where we were threatened with the removal of poles by a co-op and disconnection of power at our central office unless we accepted a huge increase in rental rate. And that type of, frankly, extortion is something that shouldn't be happening in this marketplace.

Mr. LANCE. And this is an area of law with which I am not completely familiar. Are these matters governed by state boards of public utility or not?

Mr. BENEDICT. When you are talking about municipalities and co-ops, as a general rule, no, they are not subject to state oversight and they are not subject to FCC oversight. And that frankly is a problem we would suggest Congress help correct.

Mr. LANCE. Thank you very much. I am interested in this topic and hope to be able to follow up.

Thank you, Mr. Chairman.

Mr. LATTA. Thank you. The gentleman yields back.

And the chair now recognizes for 5 minutes the gentlelady from California.

Ms. MATSUI. Thank you, Mr. Chairman.

Ms. Gold, you spoke about the importance that localities can play in accelerating their deployments. In my congressional district in Sacramento, as part of our light rail expansion, the fiber backbone was installed. And I also have to reflect on what my colleague Mr. Loeb sack mentioned about schools and the connections. I say this because I represent an urban area, yet I am hoping that this fiber that is already in the light rail expansion that it really connects to community colleges. There is a lot of territory in between which is economically depressed, and I would like to leverage this fiber that the expansion has provided here, so I am asking you, how can we best encourage broadband providers to leverage this fiber?

Ms. GOLD. So we have seen in several situations where the availability of a robust middle-mile network, often the cost—and I think

CenturyLink testified to this. The cost of getting to a community can be as expensive as building it out. Once you have the access, the middle-mile access which you now have, that helps incent fiber deployment actually to the premises.

There are several models, as Ms. Socia said. There is no one model for every community. We have found demand aggregation models, which was the big innovation that Google brought to play, has worked very well even in lower income areas. One of my members is building out the State of Mississippi, and they are going to towns as small as 3,200 constituents. And they have done it by using their middle-mile network and then actually building a demand aggregation model in that community where people all sign up. They pre-sign—

Ms. MATSUI. Yes.

Ms. GOLD [continuing]. So people know exactly where they are going to go.

Communities have a lot of assets in place, such as access to building for central offices. They have the common conduit where a fiber provider could pull fiber. So these are the kind of assets that a community needs to have an inventory of such as we need an inventory of federal assets.

Ms. MATSUI. Community assets inventories we are talking about, so if we identify, for instance, some anchor institutions like libraries and particular schools that might be strong, those might be assets—

Ms. GOLD. Yes.

Ms. MATSUI [continuing]. That we could leverage.

Ms. GOLD. Absolutely, especially if they need fiber access because then you can get funding to help build those, which releases more financial availability to actually build to the homes.

Ms. MATSUI. OK. That is good. Thank you.

Ms. Gold, you also endorse the concept of the inventory of the federal assets on which broadband can be attached or installed. Will using these existing assets drive down the cost of expansion of fiber networks?

Ms. GOLD. I think it is very important for any fiber deployer, be it local or long-haul, to know where they are going and what is available to access. And yes, that will drive down the cost of a feasibility study, it will release then more funds to actually put the fiber in the ground.

Ms. MATSUI. OK. Great. Mr. Bergmann, when it comes to broadband, we know that increasingly consumers are relying on wireless, and this is especially true for our minority populations and low-income Americans. What are the biggest barriers to wireless broadband infrastructure deployment?

Mr. BERGMANN. So, Congresswoman, I think you are exactly right. We see the same thing, which is that minority and low-income consumers are active adopters of mobile wireless and mobile broadband. They tend to have mobile broadband as their primary connection to the internet; they tend to be heavy users of the mobile internet.

So as we look to upgrade our networks, we are trying to make sure that we can provide all of the services that our consumers want. And so a big part of that is building out these next-genera-

tion networks that have much higher capacity. And so being able to do things like to deploy DAS and small cells, which are much smaller than traditional macro sites but allow us to provide that kind of capacity is really critical.

The FCC is working on a proceeding right now to speed up the deployment of those small cells, and we think that is really helpful. We have appreciated the opportunity and continue to work with the FCC.

We certainly think that this committee could help by putting a hard deadline in there for that proceeding, and that would be consistent with what the FCC is doing. They have endeavored to complete the proceeding by this time next year, and we are hopeful that that will happen. We will address some of those barriers that you talked about.

Ms. MATSUI. OK. Thank you. And today, we are basically talking about physical infrastructure, but I am also focusing on making more spectrum available because we know spectrum is really the invisible infrastructure needed for robust wireless networks. So what impact does access to the spectrum have on the broadband infrastructure deployment?

Mr. BERGMANN. So I completely agree with you. It is a symbiotic relationship between spectrum and infrastructure. We absolutely need the infrastructure to build out the spectrum. We have talked and certainly applaud your leadership, Congressman Guthrie's leadership in creating incentives for federal agencies to make spectrum available.

We really believe that you need to have low-band spectrum, mid-band spectrum, high-band spectrum. As you start to deploy in those higher bands, infrastructure becomes even more important. Those bands tend to propagate in much smaller areas, so you really need to have a dense network. If we are going to be the leaders in 5G, if we are going to be the leaders in the Internet of Things, maintain that global edge, we need to make sure that we have those dense networks and that we are able to build out that infrastructure quickly.

Ms. MATSUI. OK. Fine, thank you. And I yield back.

Mr. LATTA. The gentlelady yields back.

The chair now recognizes the gentleman from Texas for 5 minutes.

Mr. OLSON. I thank the chair. And welcome to all four witnesses.

Once you cross the Mississippi River to Arizona heading West, most of that land is controlled by the Federal Government. There is one exception, my home State of Texas, almost all private land, but that is because we were a nation, a Republic before we became State.

To maximize broadband access, we need commonsense actions that balance jobs and growth with expense and the environment. And rural access is important. For example, my home State of Texas has a state law that guarantees access to state universities for people graduating from high school depending upon their GPA, their standing in their class. That sounds great, but what happens sometimes, kids from rural schools don't have the technology to succeed. They go to a great school like University of Texas and



can't compete because they didn't have that opportunity in high school. So rural access is important.

And if we all dig on federal land or highways for broadband access, a whole swarm of agencies pop up: EPA, the Corps of Engineers, Bureau of Land Management, National Park Service, Department of Transportation, FCC, Department of Defense with the Army, the Marine Corps, the Navy, and the Air Force involved, Fish and Wildlife Service, Department of the Interior, Department of Agriculture, and on and on and on. Over and over, say, for example, BLM says good to go, EPA or Fish and Wildlife Service says stop, object, no, don't move forward. We all want growth, and that means a lean, mean federal machine for permits.

So my question is for each of you, you can be the king or the queen. Ms. Gold, you are the queen today. If you had to pick among offenders, which federal agency generates the biggest problems for your organization, and how should we fix that? Pick one out, ma'am. You are the queen.

Ms. GOLD. I don't think there is anyone because in every situation it is somebody else that is—it could be the U.S. Forest, it could be the Bureau of Indian Affairs. There is just—such a panoply of agencies control permitting and federal properties. I would be hard-pressed to say there is one.

Mr. OLSON. That is scary.

King Bergmann.

Mr. BERGMANN. I would simply echo—

[Audio malfunction in hearing room.]

Mr. BERGMANN [continuing]. Range of those agencies that you mentioned. Just by contrast, in the municipal environment Congress and the FCC have imposed deadlines of 60 days, 90 days, 150 days. In the federal space, we regularly see delays of 2 to 4 years and sometimes even longer than that. So the steps that this committee is taking to apply some deadlines consistently across agencies would be very helpful.

Mr. OLSON. King Benedict, your call, sir.

Mr. BENEDICT. Yes, I sort of hate to point fingers. Frankly, we endure the same problems with all of the agencies, and in some instances it is not because of circumstances employees can control. And if you are talking about dealing with an emergency like wildfires, then everything tends to be back-burnered.

But, that said, we do think that some offices seem to be quicker than others, but all across the board we face similar problems and unreasonable delays. And if it is good now, 6 months from now we may be facing similar backlogs because some employees have, you know, gone on leave or some other crisis has crowded out our broadband applications.

Mr. OLSON. Queen Socia.

Ms. SOCIA. I like being queen. Thank you so much. I will echo my co-panelists' comments that there doesn't seem to be any one agency that is really problematic, that it is much more endemic to the larger group.

Mr. OLSON. Well, thank you. I am running out of time. I yield back the balance of my time.

Mr. LATTA. Thank you very much. The gentleman yields back.

And the chair now recognizes the gentlelady from New York for 5 minutes.

Ms. CLARKE. I thank you, Mr. Chairman. I thank the ranking member. I thank our panelists for really honing in on today's subject matter. It is helpful for us to have a deeper understanding of what broadband deployment in relation to the Federal Government and the private sector really means for our constituents.

My first question is to Ms. Socia. While it might seem obvious that access to high-speed broadband is essential for consumers, I have seen some reports where some don't hold that view. Indeed, there are some members on this very committee that don't hold that view. How do you respond to those that don't believe that broadband is critical or an essential infrastructure?

Ms. SOCIA. I would start by sharing that I was an educator for a long time, so for me, education of our children should be a primary responsibility. And so much of what we use now in education to provide good services to children involves technology. And I will further say that in rural communities it is even that much more important. If your child would like to take a course that is not available in that small school, they can go online and take a course, but only if it is available.

I will add that precision farming, as I mentioned before, is very important in our rural areas, and in particular in communities that are drought-stricken that it has really added efficiencies that have been really helpful.

It helps our communities with things like transportation. It is essential for public safety. And these all go beyond the obvious economic development part of this problem. You can't possibly get a job or maintain a job without access these days, and I think that we need to be pretty clear about it being essential infrastructure.

Ms. CLARKE. So when we hear the argument that the market has to determine that, what would you say moving forward in the 21st century that would mean for our nation quite frankly?

Ms. SOCIA. And I would say that there may have been similar comments when we were bringing electricity across the country and we wouldn't have that question today about electricity being a market problem. And I think that broadband at this point we are coming to the place where we need to think of it in the same way, that it is essential infrastructure and that we need all hands on deck, and that if the market can't solve the problem, then we need to figure out how to solve the problem.

Ms. CLARKE. In one of the discussion drafts we offered today, we create an inventory of federal property and real property that can be used to help deploy broadband infrastructure. In addition, this draft would also permit local and municipal governments to add their existing facilities to the inventory so they might be better utilized by broadband developers. Would your members be interested in having their infrastructure added to such an inventory?

Ms. SOCIA. I don't think they are adverse to doing so. I think the problem would be that our communities and many of the smaller utilities are so tiny and so lean and their information is on paper only that such an obligation could be really an undue problem for that particular group. We are happy when folks come to our communities and ask for information, and we readily share it, but gen-

erally, it is person to person, somebody walks in the office and we can share with you where those assets are.

We do, however, encourage our communities to be fiber-ready, to identify those assets, to be ready to move forward in the marketplace however they choose to move forward.

Ms. CLARKE. Is there currently coordination between Federal, state, local governments, and would this discussion draft help foster that sort of cooperation?

Ms. SOCIA. I imagine the draft will certainly foster that sort of cooperation.

Ms. CLARKE. OK. Very well. Mr. Chairman, I yield back the balance of my time.

Mr. LATTA. Thank you. The gentlelady yields back.

And the chair now recognizes the gentleman from Illinois for 5 minutes.

Mr. KINZINGER. Thank you, Mr. Chairman. Thank you all for being here. I appreciate it. Hopefully, I won't take all 5 minutes. It depends on you guys.

So, Mr. Benedict, you speak briefly in your statement regarding the problems in locating facilities on military bases. How does that process usually go, and what delays do you typically encounter?

Mr. BENEDICT. Well, the delays we run into in crossing federal lands that are managed by Department of Defense units are akin to what we see in other federal lands. We are running into the same NEPA reviews, we are running into the same 106 reviews, but we also have some peculiar problems, and on occasion we have run into undue fees for accessing buildings or putting facilities on-site—

Mr. KINZINGER. Can you explain like undue fees?

Mr. BENEDICT. Well, it is just, for example, we were assessed something on the order of \$30,000 to put in a small central office facility on one particular base that it was just not something we were expecting.

Mr. KINZINGER. Yes.

Mr. BENEDICT. And these units, like other agencies, see an obligation to recover costs and apply fees for permitting applications. And all of those add up.

Mr. KINZINGER. So who loses when a company like CenturyLink is unable to deploy on a military base?

Mr. BENEDICT. Well, one of our, you know, major customers, of course, are military agencies. We also provide broadband and voice service to military residents in military facilities. So anything we can do to make the cost and the timely access of our facilities to those communities is important.

Mr. KINZINGER. Yes. Mr. Bergmann, one of the staff drafts addresses deployment on DOD properties. Why is this important to your members, and how could enhanced deployment on these properties benefit the armed services?

Mr. BERGMANN. So, Congressman, thank you. Certainly, two ways leap to mind. One is as the Department of Defense looks to commercial off-the-shelf solutions, right, which are innovative, world-leading, often more cost-effective, having wireless facilities on DOD bases can help that.

Certainly, another way is if you look at the personnel on a typical military base often very youthful, right, and we know that the young adults in this country certainly are big adopters of mobile broadband. So if we are looking to promote the quality of life for the men and women who are members of the armed services, making sure that there are robust mobile services there is a great way to do it.

Mr. KINZINGER. So I am still an active guardsman so I still fly planes, do military duty. I can't think of one time I have ever been on a military base where there has been available wireless access. It is all—maybe there is a caf AE1e on base that has some kind of a thing but I have never—at least that I know of never been on one where there was wireless available, which is to me kind of astonishing.

And you also mentioned in your testimony in 2012 Congress provide relief to expedite modification requests for eligible facilities. Is that working well, and are these changes having a positive impact on speed of siting?

Mr. BERGMANN. So that law has been very effective in helping us deploy co-locations so where we are adding onto an existing site, making sure that we have timelines so that that happens quickly. And we are certainly seeing the benefits of that. We believe that there is more that can be done to further streamline that municipal process. We talked a little bit about the small cell deployments, and that is another area where we are working with the Commission and certainly appreciate this subcommittee's guidance. The lessons of the 2012 act, the deadlines have been very helpful in the process.

Mr. KINZINGER. OK. Great.

Does anybody else have anything to add to that? Otherwise, I will yield back. Thank you.

Mr. LATTA. The gentleman yields back.

The Chair now recognizes the gentleman from New Mexico for 5 minutes.

Mr. LUJAN. Thank you very much, Mr. Chairman.

Ms. Gold, as you know, one of the draft bills proposes to create a database of federal assets that can be used to support broadband deployment, a proposal that was also endorsed by the White House's Broadband Opportunity Council. Can you quickly share how this database would support our efforts to expand access to rural and tribal communities, as well as penetration elsewhere?

Ms. GOLD. If you take the database and you couple it with more expedited permitting, all of a sudden people are going to know where there are assets that they can use to attach fiber or conduit they can use to pull fiber or attach wireless devices. Right now it is a real hodgepodge of trying to figure out who controls the property where and who you need to go to to get permission to have access to it. If you have that someplace logically and easily accessible, it makes the building process much better and more rapid, especially if you couple that with some sort of a shot clock on permitting.

Mr. LUJAN. I appreciate that. And, Mr. Benedict, do you believe that the discussion bills before us would advance infrastructure build-out by the private sector? Do the bills strike the correct bal-

ance to successfully address some of the roadblocks you face in New Mexico and elsewhere when it comes to applying for a permit from entities like the BLM?

Mr. BENEDICT. Yes, we think so.

Mr. LUJAN. There has been a lot of conversation from some of our colleagues, as well as with our witnesses today pertaining to how we work closer with our electric cooperatives as well. Ms. Socia, I appreciate your observation that if market forces would have driven the wiring of electricity across America, rural parts of America that grow most of our food would have been left out. We wouldn't have electricity running to these parts of the country. But with that being said, we also see the benefit of rural utility service and other aspects that help deploy those services.

Mr. Benedict, can you touch on the importance of making sure that if we indeed are going to touch rural parts of America, how a partnership with the rural electric cooperatives with a co-locate is essential to that? Last time I looked at a map of where those electricity lines ran, it was mostly rural parts of America.

Mr. BENEDICT. Yes, and we actually have facilities and provide voice and broadband in much of rural America.

And I don't mean to suggest that there is any antagonism between us and the cooperative community or municipalities for that matter, municipal systems. We actually have cooperative arrangements with a great many. Our concern is that there are some that in effect use their position to wring some additional revenue out of attachments beyond anything that we would consider truly a compensatory rate.

We, as a pole owner, fully appreciate that no party should be expecting to have access to poles or conduit at rates that are not compensatory.

Mr. LUJAN. But you said something earlier that investor-owned utilities are required by the FCC to consider these co-locates for fiber connectivity but that others may not be required to do that. Can you expand on that?

Mr. BENEDICT. Well, under FCC rules, unless a state has asserted oversight, investor-owned utilities are subject to an FCC regime, as are we, as an ILEC, that mandate cost-based rates. And that provides a basis for apportioning and allocating costs. So it doesn't necessarily mean we are the cheapest non-power attacher, but it provides a basis for ensuring that there is more predictable and more reasonable rates applied and that some of the potential abuses that we have experienced don't recur.

Cooperatives and municipal poles aren't subject to that regime. They are not subject to FCC oversight and they need not—

Mr. LUJAN. If I just may interrupt here, I apologize, Mr. Benedict, as time is running short. I just hope that that prompts us to look at this because, look, if we are going to cover rural parts of America, we should look at all the assets that we have to be able to move into this realm as well. And being a former public utility commissioner, I understand the constraints that exist, whether it is at public utility commission levels, it is at FERC, PURPA, FCC, whatever it may be. Let's bring this into a realm we have an opportunity. And to complement again the "Dig Once" legislation, I ap-

preciate Mr. Loeb sack's assessment of this, Ms. Eshoo, that this is a commonsense approach.

I would hope that also as we look at utility easements, as they are engaged with each and every one of you, whether it is water, electricity, telecom, natural gas through these easements with federal partners, including the BIA, that once one easement is approved for water, then when the next one comes in under electricity or telecom, that those same approvals that were put in place once can be put in there and maybe you can enter a cost-share with one another so you are not having to do this repeatedly.

And then, Mr. Chairman, lastly, I know time is running out, but I hope that we can have a conversation to some of the disincentives that exist when we talk about distribution versus transmission, as I would describe it, where you are providing connectivity or power for a community as described and required by federal law, especially into tribal communities, but then you enter into going into those communities but then you incur liability to have to provide service. We need to have this conversation, which is a rulemaking currently before the BIA and to see how it intersects with these conversations not only for broadband and communication penetration but for providing power and water.

So thank you for the indulgence, Mr. Chairman, and I appreciate the witnesses and the hearing today.

Mr. LATTA. Well, thank you very much. The gentleman's time has expired.

The chair now recognizes for 5 minutes the gentleman from southeastern Ohio.

Mr. JOHNSON. Thank you very much, Mr. Chairman. And I thank the panel for being with us today. Thank you very much.

Mr. Bergmann, I understand that when one of your members is sitting on a piece of land or a building governed by a municipal zoning authority, there is a shot clock imposed by the FCC that gets you a yes or a no within 150 days. But when one of your members wants to put a tower on a piece of real estate controlled by the Defense Department, that approval process can take multiple years. With the understanding that there are certainly sensitive sites where it might not make national security sense to deploy commercial wireless infrastructure, aren't there many other situations where improved commercial wireless access could improve the quality of life for those people living on the DOD facility and in some cases where that same commercial access could improve the DOD's ability to leverage commercial off-the-shelf technology to achieve its mission at a lower cost?

Mr. BERGMANN. I think you are exactly right, Congressman. In the municipal context the deadlines are 150 days, 90 days, and 60 days, recognizing that where we are adding facilities where they already exist, the timelines should be even shorter, and contrast that to our experience with the Federal Government where delays are routinely between 2 and 4 years. There are tremendous opportunities here to move more quickly and to deliver the sorts of benefits that you described, enabling our military to take advantage of commercial off-the-shelf solutions and improving the quality of life for the men and women who serve in the armed services.

Mr. JOHNSON. Do you know what drives that complicated, long timeline? What is it? Is it the paperwork or just slowness? What is your thought?

Mr. BERGMANN. So I certainly think deadlines are a helpful construct, also making sure that when we are doing more than one review, if you are doing an environmental review as well, too, or in the context of military facilities doing a spectrum review, that we try to do those reviews in parallel as opposed to sequentially, and that that will help considerably as well, too.

Mr. JOHNSON. OK. Ms. Gold, the Broadband Opportunity Council that the President created called for an inventory of federal assets such as the one contemplated by one of our draft bills. In your opinion, how does this help would-be network builders?

Ms. GOLD. It is very important to know where assets are available that you can use. Just such as we encourage every community to do an asset inventory, we would like to have such an asset inventory from the Federal Government because that would help us understand where we need to go to get permission to cross federal land or where there may be conduit or where there may be federal poles that we can use to attach fiber or pole fiber. It all helps expedite the process. And this is basically a construction project, so time is money. And I think that having legislative authority behind the Broadband Opportunity Council recommendation would be very helpful.

Mr. JOHNSON. OK. Mr. Bergmann, back to you, and I just thought of this. Do you have any examples—and if you don't, that is fine—but do you have any examples of any of those unreasonably long DOD approval processes where it could have brought some really positive advantages to the community?

Mr. BERGMANN. So we do have examples across a variety of different agencies, and we would be happy to share those with you and happy to work with your staff to give you those examples.

Mr. JOHNSON. If we could see those, that would be great.

All right. Mr. Chairman, I yield back the remainder of my time.

Mr. LATTA. Thank you. The gentleman yields back.

The chair now recognizes the gentleman from Illinois for 5 minutes.

Mr. RUSH. Thank you, Mr. Chairman. And I want to thank the witnesses for being here today.

Mr. Chairman, I want to ask Ms. Socia. In July, your organization released a comprehensive policy agenda recommending the "Dig Once" approaches to spur broadband deployment. And in my city in the county region of Cook County, we have a lot of railroad tracks, and we have over 3,000 public highway railroad crossings. And I would just like to know what are some of your frustrations that you have found that you have heard of that you might be aware of regarding access to railroad rights-of-way.

Ms. SOCIA. Our members actually find the railroads particularly difficult to work with with regard to getting a right-of-way to build under a railway. The timeline has been fairly long and the expense very high. It would be really helpful if there were a "Dig Once" policy that provided that resource available to anyone who needed to use it to pull fiber through, could save significant amount of time and money for our members.

Mr. RUSH. Have there been any discussions at all with some of the railroad companies? Are they implacable in terms of them co-operating or have there been any discussions that you all are aware of with any railroad companies?

Ms. SOCIA. I couldn't speak specifically to that, but I would be happy to ask my members for specifics and get back to you.

Mr. RUSH. OK. Now, this is a question that may or may not have been answered already, but it is dealing with the historical preservation review process for the twilight towers. Mr. Bergmann, do you have any idea, are there any impediments to the deployment of broadband to these twilight towers?

Mr. BERGMANN. So thank you, Congressman. So there are a group of towers that were built over a decade ago during a time when the historic preservation laws were unclear that exist out there today and that are not eligible for the streamlined treatment that this subcommittee and Congress helped provide for in the 2012 Spectrum Act. So we are working closely with the Commission right now to develop a resolution so that we can put those twilight towers to good use, but we would certainly appreciate any guidance from this subcommittee to make clear that towers that exist that have been out there for 10 years and that don't have objections are not required for approval under the National Historic Preservation Act.

Mr. RUSH. Thank you. Thank you, Mr. Chairman. I yield back.

Mr. LATTA. The gentleman yields back, and the chair now recognizes the gentleman from Florida for 5 minutes.

Mr. BILIRAKIS. Thank you. I appreciate it, Mr. Chairman.

Mr. Bergmann, thank you for joining us here today. I have a few quick questions for you. We all want to protect the environment and preserve scenic views and natural areas. To what extent do today's modern infrastructure technologies impact the surrounding environment?

Mr. BERGMANN. So thank you. So certainly one of the things that we see is a move toward much more small cell deployment, which is a fraction of the size. It tends to have a much smaller impact. And so one of the things that we are working to do is to try to make sure that the review process reflects that lighter impact. So that is a big part of the small cell deployment over at the FCC right now. And we would certainly like to make sure that we are able to move forward with that because, as you know, when we are able to deploy our service in those areas, we are not just taking advantage of that land, we are providing service to the folks who go into those areas. Whether they are rural communities, whether they are parks, we are making service available there as well, too.

Mr. BILIRAKIS. Thank you. And I understand that using a DAS—distributed antenna system—reduces the need for new towers, is that correct?

Mr. BERGMANN. That is absolutely correct. These are typically placed on existing towers and are used to improve coverage or to improve capacity so that we have better quality services there.

Mr. BILIRAKIS. Thank you. Has there been adequate streamlining of the FCC environmental and historic preservation review procedures? What has been your experience so far on that and what remains to be done?



Mr. BERGMANN. So the Commission has launched a proceeding to streamline that process, particularly for small cells and DAS systems, and we are certainly supportive of that effort and would like to make sure that it is completed in a timely fashion.

Mr. BILIRAKIS. Thank you. A question for Ms. Socia—welcome back to our subcommittee—can you explain a bit more about how streamlined infrastructure protocols on Federal land like at the MacDill Air Force Base in the Tampa area, how it can help programs like your Next Century Cities more efficiently meet their goals?

Ms. SOCIA. I think in building out public safety systems it is really important that there be a timely response to requests for permitting on those sites, and I think that is also accurate even in our more urban areas where there are federal buildings located in areas that our cities have had to work around in order to provide service to their citizens, free Wi-Fi or public safety.

Mr. BILIRAKIS. Thank you. And, Mr. Benedict, just for my clarification, can you describe your view that railroad companies have unrealistic expectations about their rights to public corridors? Is that a question of statutory interpretation or maybe a general question of enforcement?

Mr. BENEDICT. Well, it is a question of the statute not having been as clear as it might have been. Many of these rights-of-way have been in place for a very, very long time. And the real question is are we entitled to access? Are we entitled to place in the ballast what rates would be reasonable to expect?

We also have problems with railroad crossings, just as Ms. Socia described, and we would like to think that these could be more easily worked out with a clear directive from Congress that the holders of railroad right-of-way granted by the Federal Government must provide reasonable access on reasonable terms and conditions.

Mr. BILIRAKIS. Thank you very much for the suggestion.

I yield back, Mr. Chairman. I appreciate it.

Mr. LATTA. Thank you. The gentleman yields back the balance of his time.

At this time the chair recognizes the gentleman from Missouri for 5 minutes.

Mr. LONG. Thank you, Mr. Chairman.

And, Ms. Gold, this first question is kind of a sticky wicket. The electric utilities say that the statutory rate for cable attachment on poles is a subsidized rate that ultimately will result in electric utility ratepayers subsidizing broadband build-out. I have got a two-part question, and this is where the sticky wicket comes in. What is your response to that argument, and how should we balance the rights of homeowners and pole attachers in order to continue to encourage both pole ownership and broadband build-out?

Ms. GOLD. So in fact the Supreme Court found in 1987 that the cable rate formula adopted by the FCC provides pole owners with adequate compensation, and it did not result in an unconstitutional taking. The cable rate, as it is set up today, charges the cable owner just for that part of the pole which they use.

I would argue that any attacher to the pole should only be assessed the same rate. Right now, because we have all attachers

under two different regulatory regimes—we have the telecom attachers and the cable attachers—we go through regulatory gymnastics to try to come up with a rate that is the same for both. If we instead say there was going to be a common rate set for any attacher to a pole, then we wouldn't be going through this whole discussion.

And in fact, because the cable rate that—we always default and say it should be the cable rate because that was found years ago to be compensatory. I certainly think we would all welcome some further proceeding that might look at pole attachment rates, but for all attachers on a common basis, regardless of whether you are a cable company or a telecom company, because basically we are all putting up a cable of some kind, so they should be equal.

Mr. LONG. Yes. What year was that ruling again?

Ms. GOLD. Eighty-seven.

Mr. LONG. So the answer to my second question, how do we encourage both pole ownership and broadband build-out? That is your suggestion?

Ms. GOLD. I think we need to—there are two aspects to using the poles. It is not just the rental rate, but we also need to look at make-ready costs. This is an area that has really become a problem for new fiber deployers. When they try to get on a pole, the costs can vary widely. If a pole has violations on it from a previous attacher, often the investor-owned utility, which are the ones that are most regulated today, will argue that that violation needs to be corrected by the new entrant prior to their attaching to a pole. Obviously, we don't want to discourage new fiber deployment by making new entrants pay for some old attacher's violation.

So I think there are a whole host of issues. I think equalizing the rates and looking at make-ready costs on a nondiscriminatory cost basis would be very helpful to further fiber deployment.

Mr. LONG. OK. My next question is a two-part question for two different people. Start with Mr. Benedict and then I have got a follow-up for Mr. Bergmann.

Mr. Benedict, one of our bills requires the FCC to assume a lead role on Section 106 historical preservation reviews that are required in most federal undertakings. As I understand it, the draft bill would help eliminate duplicative reviews by other agencies. In your opinion, would this help speed deployment?

Mr. BENEDICT. Yes, we believe it would. In fact, this would be an expansion of what Congress has already done with MAP-21 with the Department of Transportation agencies.

Mr. LONG. OK. And then, Mr. Bergmann, how does this help with tower siting?

Mr. BERGMANN. So it would certainly help in our ability to deploy the sorts of next-generation technologies like DAS and small cells that are going to be used to improve both coverage and capacity. So as we try to think about moving towards 5G networks, maintaining our global leadership, the ability to do that quickly will be extremely important.

Mr. LONG. OK. And then, Ms. Socia, one for you, do you recommend to towns looking to deploy fiber that they collect a map of assets, conduit poles, ducts, buildings, utility cabinets, and offer access to the broadband provider at a cost-based rate?

Ms. SOCIA. We recommend that all of our communities do an asset inventory and really create a circumstance whereby their city is fiber-ready, whether they choose to build themselves, work with a partner, create an open-access network, or enter into a public-private partnership. We feel like having that information ready is definitely a helpful step in making this deployment happen faster.

Mr. LONG. OK. I am asking because I would like to know if the Federal Government should do the same, but I am out of time. I don't have any time, but if I did, I would sure yield it back.

Mr. LATTA. Well, in that case, the gentleman's time has expired.

And I am going to turn to the ranking member if she would like a point of personal privilege.

Ms. ESHOO. Well, thank you, Mr. Chairman. I appreciate it.

We know that the age levels vary with the wonderful staffers that work with us, and there are two that have joined us here in the hearing room. They are my godsons, and if they would just stand up. This is Paul Voss and this is Thomas Voss. And so they want to learn about what we do here. So look at people waving to you. Isn't that great? So we welcome you. Who knows—yes, hi, guys. Yes. Maybe someday they will either be at that table or this one.

Thank you very much, Mr. Chairman.

Mr. LATTA. Well, thank you very much.

And with that, and seeing no other Members to ask questions this afternoon, on behalf of the subcommittee chairman, the gentleman from Oregon, the ranking member, the gentlelady from California, and myself, I would like to thank this panel for your excellent presentation this morning. We really appreciate your time.

And if there are no other issues to come before the committee, we stand adjourned.

[Whereupon, at 12:16 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]



**Statement of the  
AMERICAN PUBLIC POWER ASSOCIATION**

**Submitted to the  
HOUSE ENERGY AND COMMERCE COMMITTEE'S SUBCOMMITTEE ON  
COMMUNICATIONS AND TECHNOLOGY  
For the October 28, 2015, Hearing on  
"Breaking Down Barriers to Broadband Infrastructure Deployment"**

(Submitted October 28, 2015)

The American Public Power Association (APPA) appreciates the opportunity to provide the following statement to the House Subcommittee on Communications and Technology on the October 23, 2015, "Pole Attachments Discussion Draft" (discussion draft) that will be addressed at the hearing on "Breaking Down Barriers to Broadband Infrastructure Deployment." APPA is the national service organization for the more than 2,000 not-for-profit, community-owned electric utilities in the U.S. Collectively, these utilities serve more than 48 million Americans in 49 states (all but Hawaii). APPA was created in 1940 as a nonprofit, non-partisan organization to advance the public policy interests of its members and their customers. We assist our members in providing reliable electric service at a reasonable price with appropriate environmental stewardship. Most public power utilities are owned by municipalities, with others owned by counties, public utility districts, and states. APPA members also include joint action agencies (state and regional entities formed by public power utilities to provide them wholesale power supply and other services) and state, regional, and local associations that have purposes similar to APPA. Collectively, public power utilities deliver electricity to one of every seven electricity consumers. We serve some of the nation's largest cities, including Los Angeles, CA; San Antonio, TX; Austin, TX; Jacksonville, FL; and Memphis, TN. However, most public power utilities serve small communities of 10,000 people or less.

APPA is supportive of efforts to promote the development of broadband. More than 100 public power utilities currently provide broadband services to their residential customers and many more provide such services to businesses. While many APPA members do not provide broadband services, they understand the importance of broadband for economic development and the quality of life of their customers, who also happen to be their owners. APPA commends the Subcommittee for seeking to promote broadband infrastructure development, a goal that we share. However, APPA does not believe the changes proposed by the discussion draft that would impact public power would further this important goal.

**Background**

In 1978, Congress passed the Pole Attachment Act, which added Section 224 to the Communications Act of 1934, to require the Federal Communications Commission (FCC or Commission) to establish

subsidized rates for pole attachments for the then-new cable industry. Under the law, public power and rural electric cooperative utilities were exempted from this requirement “because the pole attachment rate charged by municipally owned and cooperative utilities [were] already subject to a decision-making process based upon constituent needs and interests.” This exemption has continued (despite claims that the exemption would lead to excessive rates charged) through multiple telecommunications reform efforts, including enactment of the Telecommunications Act of 1996, because Congress maintained that the existing process is appropriate and adequate. Attachment rates are determined at the local level and, if an entity is seeking excessive pole-attachment rates, the affected operator has the remedy of taking the issue to the local government and community to challenge that rate.

This 37 year policy of exempting public power and cooperatives from federal pole attachment regulation has worked well because Congress correctly recognized that consumer-owned, not-for-profit electric utilities will act in the best interests of their customers. Any communications entity seeking to attach to a pole that feels it is not being dealt with fairly has the remedy of going to the city council or utility board and making its case. It is not in the mayor’s or city council’s interest to prevent entities from attaching to poles and bringing in broadband services their constituents want and need.

#### **APPA’s Views on the Pole Attachment Discussion Draft**

**Reporting Requirements on Pole Attachment Rates and Locations.** APPA is very pleased that the discussion draft does not seek to repeal the public power/cooperative exemption in Section 224 of the Act. It further validates and reinforces the long-term policy by Congress that consumer-owned electric utilities are best situated to balance competing local needs, and to make decisions in the best interests of their customers and that local accountability and local remedies are available and sufficient to deal with disputes about rates or the make ready process. APPA, however, is concerned that the reporting requirements in the discussion draft lay the groundwork for future repeal of the exemption. There is no need for the FCC to create a database of rates charged by individual utilities, especially utilities the Commission currently has no jurisdiction to regulate. In the 2010 National Broadband Plan, the Commission recommended to Congress that it should “consider amending Section 224 of the Act to establish a harmonized access policy for all poles, ducts, conduits, and rights-of-way.” In making this recommendation, the FCC singled out the exemption for “poles owned by cooperatives, municipalities, and non-utilities,” and poles in states that have adopted their own system of regulation, noting that 85 million poles are not subject to its jurisdiction. The record is pretty clear that the Commission wants to expand its regulatory reach to every single pole in the country owned by every type of utility. States and localities are better able to develop these policies than federal bureaucrats located in Washington who have very little understanding of how electric utilities operate or any interest in ensuring that electric ratepayers do not subsidize for-profit communications companies through pole attachment rates that do not accurately reflect the cost of attachment.

Furthermore, APPA is very concerned about the regulatory burden the annual reporting requirements on rates and locations would impose on public power utilities. Most public power utilities serve communities of 10,000 or less and most qualify as small businesses under the Regulatory Flexibility Act. In smaller communities, the electric utility shares employees with the local government. In others, they have only a handful of staff. These utilities all have distribution poles, so all would be subject to these

reporting requirements. Yet, they lack the manpower and/or resources to submit such data to the Commission. APPA respectfully urges the Subcommittee to drop the annual reporting requirements on pole attachment rates and locations. Including them undermines the policy goal of retaining the public power/cooperative exemption and imposes an unnecessary regulatory burden on APPA members that lack the resources and manpower to comply with such requirements. In addition, there are national security and public safety issues with the cataloging of pole locations in a federal database.

**Nondiscriminatory Access to Poles.** APPA supports the Subcommittee's goal of ensuring nondiscriminatory access to poles. As a policy matter, APPA has long encouraged its members to allow all communications attachments regardless of classification. If an entity seeking to attach to a pole is not classified as a telecommunications carrier or cable television system, it should have the right to access poles to offer broadband services. While the FCC's open internet order reclassified internet access as a telecommunications service rather than an information service, thus negating the need for language to give broadband providers the right to attach, APPA supports the Subcommittee making it clear that all communications entities should have the right to attach. However, APPA is concerned that application of the nondiscriminatory access language in subsection (f) to public power and cooperative electric utilities that are otherwise exempt from Section 224, could have the unintended consequence of giving the FCC jurisdiction over public power utilities for violations of Section 224(f)'s nondiscriminatory access requirements. APPA respectfully recommends that the Subcommittee drop the proposed language change to Section 224(a)(1) imposing the nondiscriminatory requirements on exempt public power and cooperative utilities. APPA members have no reason to discriminate against entities that want to attach to poles to offer broadband services. If the Subcommittee is not willing to drop such language, APPA respectfully requests that it revise the discussion draft to make it clear that the FCC does not have enforcement authority over exempt public power and cooperative electric utilities through the proposed language that would be added to Section 224(a)(1) that subjects all utilities to the nondiscriminatory provisions of subsection (f).

In addition, APPA is concerned how the language subjecting public power and electric cooperatives to the nondiscriminatory access provisions of subsection (f) in combination with the elimination of the incumbent local exchange carrier (ILEC) carve-out in Section 224(a)(5) would impact our members. The striking out of that language would mean ILECs are entitled to the same rates, terms, and conditions as telecommunications carriers and cable television systems. This would essentially provide ILECs with the ability to unwind provisions of their joint use agreements with electric utilities that they do not like without having to grant the utilities reciprocal rights. These proposed changes in the discussion draft could result in ILECs asserting that their joint-use agreements are discriminatory and that the Commission thus has jurisdiction over these purported violations.

APPA thanks the Subcommittee for the opportunity to comment on the discussion draft and looks forward to working the Subcommittee on improving the language.

FRED UPTON, MICHIGAN  
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY  
RANKING MEMBER

ONE HUNDRED FOURTEENTH CONGRESS  
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**House of Representatives**  
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December 7, 2015

Mr. Scott Bergmann  
Vice President of Regulatory Affairs  
CTIA – The Wireless Association  
1400 16th Street, N.W., Suite 600  
Washington, DC 20036

Dear Mr. Bergmann:

Thank you for appearing before the Subcommittee on Communications and Technology on Wednesday, October 28, 2015, to testify at the hearing entitled “Breaking Down Barriers to Broadband Infrastructure Deployment.”

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Monday, December 21, 2015. Your responses should be mailed to Greg Watson, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed in Word format to [Greg.Watson@mail.house.gov](mailto:Greg.Watson@mail.house.gov)

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,  
  
Greg Walden  
Chairman  
Subcommittee on Communications and Technology

cc: Anna G. Eshoo, Ranking Member, Subcommittee on Communications and Technology

Attachment



The Honorable Ben Ray Lujan

**Question:** I represent a state with real needs when it comes to broadband deployment. While I absolutely support efforts aimed at breaking down barriers slowing deployment, we also must commit to making the necessary investments. Through the Connect America Fund, the FCC incentivized carriers like CenturyLink to build to high-cost areas by offering them additional support. CenturyLink took the FCC up on its offer in 33 states.

Currently, the FCC is working to reform the universal service mechanism that supports rate-of-return carriers' deployment and maintenance of broadband services. As part of that effort, I support including a Tribal Broadband Factor that could drive millions of dollars in investments to some of our most vulnerable communities.

**Mr. Bergmann, what are the primary challenges to ensuring populations in difficult to serve regions are able to access affordable broadband? What can we do to make these areas more viable for carriers?**

**Answer:**

CTIA believes that mobile wireless broadband can and should play a crucial role in meeting consumer needs and demand in rural areas. While my testimony highlighted the general barriers we face in deploying wireless infrastructure, the basic economics of deploying mobile wireless broadband to unserved, remote areas are challenging. With consumers' strong preference for mobile wireless services, CTIA believes that wireless facility siting policies are critical to deployment in these areas. It is also essential that federal universal service programs adhere to competitive and technology neutral policies.

Consumers increasingly are adopting wireless to access essential communications services and information resources. As of December 2014, there were approximately 355.4 million wireless connections nationwide, equal to 110 percent of the U.S. population. The percentage of households that are wireless-only has been steadily increasing, and many American adults now exclusively have access to telephone service via wireless devices. What's more, some 19 percent of American adults rely primarily or solely on their mobile devices for online access.

As I said in my testimony, building out wireless infrastructure to ensure that all Americans have broadband capabilities will require access to locations controlled by the Federal





government and others. Access to federal properties is especially important in rural, hard-to-serve areas where federal agencies, including the Bureau of Land Management, National Park Service and U.S. Forest Service, control substantial geographic areas of the country. Clear and complete implementation of Section 6409 of the 2012 Spectrum Act, the 2012 Executive Order and the recommendations of the Broadband Opportunity Council can help advance wireless broadband siting by establishing common processes and contracts for the deployment of wireless facilities on federal property.

In addition, to ensure our rural areas are part of the mobile wireless future, the FCC's universal service policies should reflect consumer demand for mobile wireless broadband services. Specifically, we believe the FCC's Connect America Fund should be competitively and technologically neutral to direct limited federal USF resources to the most efficient and effective solution for an unserved rural area. As the FCC acknowledged in the *National Broadband Plan* and the *USF/ICC Transformation Order*, the most efficient technology to serve a particular area will vary based on a number of factors including the locations of customers, proximity to other facilities, and topography. For many areas, mobile wireless services will be the most efficient technology. Use of the most efficient technology will ensure that more Americans receive broadband service at a lower cost to the federal universal service fund.

CTIA also believes the FCC should fulfill a commitment made in the *2011 USF/ICC Transformation Order* to establish a permanent Mobility Fund. A permanent Mobility Fund will further enable wireless providers to deploy the mobile wireless broadband services that will meet the educational, commercial and communications needs of rural consumers.

FRED UPTON, MICHIGAN  
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY  
RANKING MEMBER

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December 7, 2015

Mr. Jeb Benedict  
Vice President of Federal Regulatory Affairs and Regulatory Counsel  
CenturyLink  
1099 New York Avenue, N.W.  
Washington, DC 20001


Dear Mr. Benedict:

Thank you for appearing before the Subcommittee on Communications and Technology on Wednesday, October 28, 2015, to testify at the hearing entitled "Breaking Down Barriers to Broadband Infrastructure Deployment."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

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Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,  
  
Greg Walden  
Chairman  
Subcommittee on Communications and Technology

cc: Anna G. Eshoo, Ranking Member, Subcommittee on Communications and Technology

Attachment



**CenturyLink™**

**John E. Benedict**

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December 21, 2015

Greg Watson, Legislative Clerk  
Committee on Energy and Commerce  
United States House of Representatives  
2125 Rayburn House Office Building  
Washington, DC 20515

Dear Mr. Watson:

On December 7, Chairman Greg Walden sent me a follow-up letter to my October 28 testimony before the Subcommittee on Communications and Technology at the hearing entitled "Breaking Down Barriers to Broadband Infrastructure Deployment."

Enclosed with the letter was a Question for the Record filed by Congressman Ben Ray Lujan. Please find attached my response on behalf of CenturyLink to Congressman Lujan's question.

Thank you for the opportunity to testify before the Subcommittee, and for Chairman Walden's leadership on broadband infrastructure and many other policy issues impacting the nation's technology economy. Please do not hesitate to contact us whenever CenturyLink can be of service.

Sincerely,

John E. Benedict

Attachment

**The Honorable Benjamin Ray Lujan**

**Q: Mr. Benedict, what are the primary challenges to ensuring populations in difficult to serve regions are able to access affordable broadband? What can we do to make these areas more viable for carriers?**

The primary challenges are overcoming the cost of deployment in order to create a sustainable business model in areas that have low population density and challenging terrain that make it more difficult to build and maintain a network. In rural states like New Mexico, it can be difficult for a carrier to recover the cost of investment when the provider must build and maintain more infrastructure to reach each individual residence or business.

This challenge is compounded in the many instances when serving a community requires access to federal lands for right-of-way. The charges imposed by federal land agencies for lease of right-of-way add to the cost of deployment and operation, especially in rural areas. The costs, uncertainties, and delays associated with permitting and right-of-way approval needlessly impedes carriers' ability to invest in broadband infrastructure. CenturyLink routinely faces many months of delays at federal land agencies. This includes delays for approval of projects that should be readily granted, such as overlanding of fiber on existing poles, addition of fiber to existing conduit, and burial of fiber along previously disturbed road shoulders or utility rights-of-way.

In addition, the broadband adoption rate for a community will impact the viability of serving it with broadband or investing in costlier network upgrades that enable higher bandwidth. For example, in the residential areas surrounding the national laboratories in New Mexico, a high percentage of the population is technologically inclined, affluent and likely to subscribe to a home broadband connection. But in some other communities, low income, lack of access to information technology equipment, or lack of interest in broadband services may present challenging barriers to adoption. Low adoption rates will make a community more difficult to serve and can make investment in network upgrades less viable.

There are many steps that policymakers can take to make these economically challenging areas more viable for carriers to invest in and serve. The Subcommittee's leadership in calling the October 28 hearing and subsequently approving the NTIA Organization Act highlights one valuable area of focus. By streamlining the approval process at various federal agencies, reexamining the pole attachment regime, and directing the inclusion of broadband conduit in certain highway projects, Congress can both help expedite the rural build-out project touched off by Phase II of the Connect America Fund, and make certain communities near federal lands more viable to serve.

As you rightly point out, the Connect America Fund has been a powerful factor in incentivizing “price cap” carriers like CenturyLink to build more capacity to many more low-density, high-cost areas. For its part, CenturyLink accepted CAF Phase II commitments in many states, including New Mexico, which will deliver broadband service to an estimated 1.2 million households and businesses nationally. CenturyLink has already begun its CAF Phase II build-out and is currently finalizing its larger construction plans for 2016. Rural communities in many of our states will begin to see results by the end of the year. The Federal Communications Commission is in the midst of developing some of its follow-on steps to CAF Phase II, including creation of a competitive bidding process for areas where the incumbent carrier did not exercise its right of first refusal, as well as some areas that did not meet the 10 Mbps download speed target but still did not qualify for Phase II support. Continued support and implementation of these phases can make additional difficult-to-serve regions more viable for carriers.

Additionally, the Commission is finalizing reforms to its universal service mechanisms for rate-of-return broadband service, provided by smaller carriers. In the course of that reform, ensuring sufficient support for high-cost tribal areas will certainly help make investing and serving in those areas more viable for carriers, creating additional economic development, educational, telemedicine and other opportunities especially important to those communities.

On the question of broadband adoption, the Commission is currently considering major reforms to its Lifeline program, which supports communications services for low-income households. One reform under consideration is allowing Lifeline households the option of choosing broadband, rather than voice, as their supported service. In addition to granting individual Lifeline recipients more flexibility, this proposed modernization of the program can benefit the broader community by raising the overall broadband adoption rate in lower income areas, helping justify greater network investment in some areas that could otherwise be nonviable for broadband infrastructure and upgrades. Lifeline program reform holds particular promise for rural, economically challenged tribal areas.

CenturyLink appreciates Subcommittee’s and your leadership on national broadband policy, and we look forward to working with you in 2016 as Congress considers more reforms to help encourage broadband infrastructure investment.